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ART. I.—*A Case of Hepatic Abscess, which discharged pus at three points.* By ANDREW R. KILPATRICK, M. D., of Woodville, Miss.

In looking over the medical literature of the day one is struck by the number of cases of strange or wonderful disease—of recovery from wounds apparently immedicable, or diseases of the most hopeless character, and a doubt may sometimes arise whether such things can be so. But the physician of extensive experience or reading has been taught that, in our profession,

"Truth is strange,—stranger than fiction."

The following case, if I am not mistaken, will be considered remarkable. If there is another on record precisely like it, I have not been able to find the history of it, and I have

looked diligently through all the medical books within my reach. It occurred in the Grand Prairie, St. Landry Parish, Louisiana, in the practice of Dr. James M. Murph, of Washington, near Opelousas.

Stephen Bundick, aged 33 years, large and well formed, a blacksmith by trade, health generally good, but occasionally interrupted by attacks of intermittent fever, and pain in the right hypochondrium, which latter symptom was increased by hard labor. On the 23d of February, 1843, he was attacked by severe pain in the region of the liver, which yielded to venesection and cathartic medicine. The pain returned next day with its former violence; the same remedial agents were again employed, but the bleeding was not carried to a sufficient extent, as the pain was only slightly moderated, and continued, in spite of free catharsis, up to the morning of the 3d of March, when the pain suddenly diminished, leaving a dull, heavy pain, as he styled it. This was regarded as a favorable crisis, and he and his family looked with hope to a speedy restoration of health. The scene, however, soon changed; his extremities became cold, and a clammy perspiration bedewed the body. By employing stimulants and rubefacients a slight degree of warmth was restored, but he still continued to sink, becoming partially comatose, with difficult, laborious respiration; and in the afternoon what was regarded as the ominous death-rattle added to the other symptoms its unwelcome sound. It was at this late stage of the case that Dr. Murph was called in. The hands and feet of the patient were very cold; eyes, though dull, still indicated consciousness and apprehension, as he gazed in his physician's countenance. Pulse small, soft, and thread-like, so much so as to be scarcely perceptible; tongue moist, clean at the tip and edges, brown and fissured in the centre and at the base; dull pain in the right side; slight tenderness in the epigastrium; spleen and liver both considerably enlarged; intestines had been emptied by free purgation. Stimulants were now given freely, and frictions and mustard sinapisms applied to the extremities, followed by vesicatories. Scarified cups to

right side of thorax, after which ung. tart. ant. was rubbed on the scarified places, and a large vesicatory was applied to right hypochondrium. He was revived by the stimulants, and by turning him on the right side the mucus was dislodged from the trachea, and his respiration became more easy. Left powders of submur. hydrarg., sulph. quinine and gum camphor, to be administered every three hours and assisted, if necessary, by enemata.

March 4th. Pulse fuller; skin more natural in warmth and color; blisters drew well; expectoration more easy and free; medicine acted rather too much. Continued same powders with the addition of morphia.

5th, 6th, and 7th. Visited him regularly, and his amendment was progressive and marked. Pustules from ung. tart. ant.; blistered surfaces secreting and bowels soluble; appetite returning. There is still a disinclination to lying on the left side, and occasionlly an obtuse pain in right side. Giving general directions, visits were discontinued. Saw him again on the 27th March, at which time he was expectorating pus freely; stated that he had discharged an immense quantity of purulent matter by vomiting. Troubled with copious night-sweats, preceded by slight febrile exacerbation. In three weeks more he was again *working at his trade.* The disease, however, was not eradicated.

On the 27th May medical assistance was again demanded, when he was found in a worse condition than before; very feeble and emaciated, with the liver so much enlarged as to fill nearly two-thirds of the abdomen, obstructing, materially, the operation of the medicine. There was a painful tumour above the umbilicus, and one below, to the right side, or in the right lumbar region, both of which indicated the incipient formation of abscesses. In spite of a rigid antiphlogistic treatment and every effort to arrest the formation of pus, it was evident on the 1st of June, three days after, that this had taken place. Next day upon examining the alvine dejections, it was discovered that they consisted almost exclusively of green pus. The points of the tumours were sunk,

flaccid and without any fluctuation. In a few days the tumors, or abscesses were again full and doughy. At the solicitation of the family, and by the advice of Dr. Tatman, and my friend, Dr. Geo. Hill, of Opelousas, an opening was made through the abdominal parietes and a quantity of fœtid gas rushed out, allowing the abdomen to sink down into a flaccid condition. In a few days pus was discharged at the incision in considerable quantities; the orifice had no disposition to close, although the lips were brought in apposition by adhesive strips. Although he discharged pus by expectoration and per anum, yet this was the greatest outlet, and in the course of two weeks the matter ceased entirely to pass by either of the openings, notwithstanding his body was placed in several different postures. The quantity of pus at this time was small; the opening was healthy, and there was such a favorable general condition of the patient, that hopes were entertained of a final recovery. At this stage of the case his attendant, Dr. Murph, was taken very ill, and saw him no more.

From exposure, imprudence and neglect, as I am credibly informed by Dr. Tatman, and also the too free use of mercury, after the illness of his physician, a deplorable condition was brought on. Severe salivation, gangrene of the external orifice, general prostration, and wreck of the whole system supervened, and he died about the last of July, 1843, in a most loathsome condition. Dr. T. was called to see him, but it was too late—he was moribund when he saw him. I am extremely sorry to say, that owing to the peculiarly unpleasant situation of the cadaver, and the great press of other cases, there was not a post-mortem examination. And, in fact, in this particular the physicians of the South and West are culpably negligent in prosecuting these examinations. I hope, however, that a change is taking place, both in the medical gentlemen and the community, as regards autopsies.

On reviewing this remarkable case, there are many thoughts suggested to the mind, and many points of inquiry. Is it likely that he would have recovered from the first severe at-

tack, if medical assistance had not been employed? My own impression is that he would not. The remedies employed to revive him, and the great mental adjuvant, of faith in his physician, brought him through.

It is singular that an inflammation of the liver should have occurred at that season of the year, and more especially of last year, when the winter was so very cold and protracted. Is it likely that there was a slow, chronic lesion transpiring in that organ the cause of the pain in the right hypochondrium which was increased by hard labor?

I am of opinion that there were, in truth, *four* different points of exit to the pus; for on the 27th March he was found expectorating pus, and had vomited a great quantity; here then were two. Subsequently he discharged green pus per anum, and then the external opening was made. It may be contended that the pus which was discharged by vomiting and per anum entered the alimentary canal at the same point. If it entered the stomach or duodenum, it could scarcely have passed the entire length of the intestinal tube in such an unmixed and pure condition as it was found to be; and if it entered at any point below the duodenum, could it have been discharged by emesis? My opinion is, that it was discharged into the stomach, and also into the colon.

A case somewhat similar, except that it was more rapid in its progress, is to be found in Dr. James Johnson's treatise on the diseases of Tropical Climates. On post-obit search, he says, "the liver was found one entire mass of suppuration and disease. I passed my hand from it into the stomach, to which it adhered, and through which an abscess had burst. Another adhesion had formed between the liver and the transverse arch of the colon, through which was an exit also for the matter."

A similar case, with a better result, occurred in the practice of Dr. Colledge, at Macao, China, recorded in Dr. Bell's Eclectic Journal of Medicine, for January, 1839. He first discharged the pus through the colon downwards, and afterwards through the lungs. He finally recovered.

I am inclined to think that Mr. Bundick would have recovered, if proper professional aid had been rendered after his first medical attendant was taken sick. The case should teach us never to despair, but under circumstances the most unpromising to ply our measures to the last. Few cases can occur where less is promised than was afforded by this at one time, and yet the recovery was so far completed, that the patient was able to resume his laborious trade. It is greatly to be regretted that he did not receive in his relapse the same judicious treatment which attended his first illness. The omission of the autopsy is one which I also very much regret.

March, 1844.

ART. II.—*A Case of Tubercular Disease.* By W. W. GOODWIN, M.D., of Utica, Indiana.

November 24, 1843, I was called to visit Mrs. B., æt. about 30 years, of scrofulous diathesis, who had been attacked some ten months previously with slight diarrhœa, attended with some cough, and pain in the chest, from all of which symptoms she at first had occasional respites, continuing for some weeks. After remaining some time in the above condition, she became pregnant with her fifth child, when all the pectoral symptoms grew much less conspicuous, while the diarrhœa gradually increased in the frequency of its attacks until I saw her. At this time she was laboring under a regular tertian ague. She was much emaciated, confined to her bed, pulse rather tense, and 130 in the minute; tongue furred in the centre, with moist, clean edges and tip. Tenderness to pressure in epigastrium and region of the colon. The sound elicited by percussion over the inferior lobe of the left lung very slightly cavernous—that from the superior lobe rather dull. Right lung rather dull throughout, but the departure from a healthy sound was not great. As the disease advanced, the sound on percussion underwent some modifi-

cation, becoming more healthy, until her accouchement took place. Her labour was somewhat tedious, but in other respects was not unnatural. As is usual in such cases, after this event, she grew worse, her cough becoming very troublesome, attended with severe pain in the left side, which soon extended to the right also. Purulent expectoration came on, and was followed in a few days by considerable hemoptysis, after which she declined rapidly. Pain in the chest, stomach and bowels increased to an extent that was excruciating; sweating and diarrhœa became profuse; pulse small, and from 130 to 150. Sweating ceased a few days before death. The sound on percussion over the inferior lobe of the left lung very hollow—over other parts rather dull.

An autopsy was made about five hours after the death of the patient.

Chest.—Left lung very much reduced in volume, with several considerable cavities in its inferior lobe. The balance a complete mass of tubercles in different degrees of maturation—extensive adhesions of the superior posterior surface. Right lung as extensively diseased as the left, but the tubercles not so far advanced; the adhesions not quite so great. Heart and pericardium normal.

Abdomen.—Liver gorged with dark blood; gall-bladder containing dark viscid bile. Spleen, pancreas, and kidneys natural. Stomach had a small ulcer near its cardiac orifice; duodenum healthy; other small intestines ulcerated in many places, adhering strongly to the abdominal parietes. Colon ulcerated in several places, and very much thickened and contracted in volume, particularly the ascending portion of the bowel. Mesentery softened, and broken down in places; glands greatly enlarged.

No examination was made of other parts, the character of the disease having been fully revealed by what was inspected. I may remark that the treatment, which would not be interesting in detail, was directed to the relief of symptoms, the case being one in which, from the beginning, but slender hope of recovery was afforded.

March 15, 1844.

ART. III.—*A Case of Stricture of the Urethra, with effusion of urine into the Scrotum, sloughing and loss of a Testis; and a Case of Epilepsy in which trephining was resorted to.* By WILLIAM M. YANDELL, M.D., of Benton, Miss.

A negro man, aged about 50 years, had labored under a stricture of the urethra for fifteen years, during which time he had been attended by several physicians, who resorted to the use of the bougie without affording him relief. The stricture continued to increase, and at length the obstruction became so great, that the urine escaped by stillicidium. During last autumn he had an attack of bilious remittent fever, and while laboring under this disease the urine made its way into the scrotum. When I was called to see him the scrotum had become immensely distended, being in bulk as large as the head of a six year old boy. It was also gangrenous to a considerable extent, and on examination it was discovered that one of the testes was affected with gangrene also. His general health had suffered seriously, and his condition was altogether deplorable. The urine having been drawn off by a free incision, the parts were repeatedly washed with a solution of the chloride of soda, and soothing poultices were applied. The testis, which showed indisputable marks of gangrene, was excised after a day or two, and the patient put upon the iodide of iron. He improved rapidly, and in a short time was going about. For the stricture, which was still remaining, unalleviated, I commenced the strenuous use of the bougie, beginning with the smallest size metallic one, and have just had the satisfaction of dismissing the patient cured.

I discharged, to-day, a case of still greater interest to me. A young man, 21 years of age, from the fall of the limb of a tree, which fractured the right parietal bone, became subject to epileptic fits, and placed himself under my care about a month since. The depression in the bone extended in length to an inch and a half, and was about an inch broad. The accident occurred seven years ago. The convulsions ensued soon after, and have followed him ever since, his mind, in

the mean time, having become impaired, as is usual in that disease. The case appeared to me to be one of those in which a surgical operation afforded the only chance of recovery. I applied the trephine, in presence of my brother, Dr. Burton Yandell, four weeks ago, by which I removed, at first, a portion of the depressed bone. The inner surface of the bone was smooth and healthy, as was also the dura mater —pulsation of the brain scarcely perceptible. A probe being passed under the depressed bone which remained, two ounces of bloody serum escaped, but I was not able to discover any roughness of the bone, or any spiculæ growing from its surface upon the dura mater. I determined, however, to re-apply the trephine, and remove the remainder of the depressed cranium, so as to see the source of the fluid, and the condition of the dura mater at that point, as well as to relieve the brain from pressure. I proceeded cautiously, raising the bone with the elevator before the incision had been made complete all around. On lifting out the bone, a gush of blood, in a stream larger than a goose-quill, followed, and seemed to threaten the life of the patient, but was promptly restrained by pressure. It was soon discovered that complete paralysis of the left leg and arm had supervened, in consequence, perhaps, of the pressure used to control the hemorrhage. This symptom, however, is giving way under the use of friction and rubefacients, and I have no doubt will entirely disappear when the parts return to their natural state. His general health has become quite good; he has had no return of the convulsions up to this time, and his mind appears to be gaining in vigor. It is yet too early to predict what will be the final issue of the case, but I may remark that no untoward symptom now exists, and the promise is, that he will remain exempt from his distressing malady.

Benton, March 20, 1844.

ART. IV.—*Typhus Abdominalis; Ganglionic Typhus; Nervous Fever.* From Professor SCHOENLEIN's Lectures, published by some of his disciples. Translated by F. Roëlker, M.D., of Cincinnati.

The seat of this disease is in the abdominal organs, in the mucous membrane of the intestinal canal, and in the abdominal nervous system.

We discriminate three stages: 1. The stage of irritation; 2. The nervous, and 3. The critical stage.

A stadium prodromarum often precedes, and these premonitory symptoms are sometimes somewhat characteristic.—Weariness and heaviness in the limbs; sleep restless, not refreshing, interrupted with frightful dreams; loss of appetite; increased thirst, and frequent stools, mostly at night and seldom during the day. These symptoms often mislead physicians to the administration of irritating remedies, which only serve to hasten the development of the disease.

1. The stage of irritation. The beginning of the typhus diseased process may be dated from the time when the patient perceived the last chill, which was followed by permanent heat. We discriminate in this stage, (*a*) symptoms derived from the nervous system; (*b*) from the mucous membranes; (*c*) and from fever present.

(*a.*) Symptoms of the nervous system. The great weariness and atony, the leaden heaviness in the limbs and the dulness of the head increase. There is a deep sensation of sickness in the sensus communis, a reeling and staggering in walking; the eyes have a peculiarly faint and dull aspect, seldom real pain in the frontal and occipital region, but frequently starting up in sleep, rarely, however, delirium in this period.

(*b.*) Symptoms of the mucous membranes. The patients have a peculiar countenance, a gastric physiognomy, gastric color; the tongue is coated, whitish, slimy, and often bilious, yellowish, and filthy. Bitter, slimy taste, nausea, frequently amounts to actual vomiting. More or less pain in ileo-cæcal

region, which, when it does not show itself immediately, often does appear after some motion. Constipation until the fourth day, then those characteristic stools occur, which consist of two parts, a superstanding liquid, as common intestinal mucus, colored yellow or greenish by a peculiar pigment; and of a subter-standing mass, which is flaky, and consists of albumen (which becomes less abundant in the blood), and of flocculi of a yellow color. The microscopical examination shows alkaline crystals, which are of an uncommon size and become visible at a twenty-fold magnification.

(*c.*) Symptoms of the fever. The symptoms of the general reaction may be of a sthenic, erethic, or of a torpid character. In that of the sthenic character there is violent chill, followed by heat, with calor mordax of the skin. The pulse is not particularly accelerated, but full and hard, from 80 to 90 beats in a minute. The tongue is covered with a white fur; thirst great; appetite bad. The fever is, however, more frequently of an erethic character. Shaking chill followed by permanent heat; skin rigid and dry; pulse accelerated, vigorous, 100 to 120 beats. The urine inconstant, often quite pale, mostly, however, dark-red and brownish. All these symptoms show a definite type of distinct exacerbations and remissions, the latter in the morning, the former in the evening. In the first stage the fever is seldom of a torpid character, in which the pulse is small and frequent, 110 to 120 beats, fluttering and easily compressible; subsultus tendinum, picking of the bed-clothes, &c.

Complications.—In this stage complications sometimes appear, especially violent affections of the brain, caused by strong congestions of it; and in this case violent furibund delirium takes place, commonly between the third and fourth day. The face is red, glowing hot; the eyes injected, protruded; the pulse full, hard, tense, 110 to 120 beats; tongue dry; thirst violent; carotids strongly pulsating; urine red. Encephalitis might be mistaken for it, which however is prevented by the characteristic diarrhœa, and the pains in the cæcum. Pneumonic symptoms often appear, especially in young, vigorous men, and at certain seasons. Sometimes op-

pression of the chest is felt, at other times a stinging pain; difficult respiration; cough; expectoration of mucus, which is sometimes streaked with blood; at some places dull sound upon percussion; and dry rhonchus, upon auscultation is heard.

The duration of this stage is seven days in its regular course, and in this case critical symptoms appear on the seventh or eighth day, which, however, disappear again; these commonly are, a moist skin, turbid urine, and epistaxis. Yet commonly on the evening of the eighth day, violent symptoms appear again, and the patient passes on to the second stage.

2. *The Nervous Stage.* Here we discriminate also: (*a.*) Symptoms of the nervous system; (*b.*) Of the mucous membrane; and (*c.*) Of the fever.

(*a.*) Nervous Symptoms. There is muscitating delirium from the beginning, which becomes more continued and eventually permanent. The susceptibility to external influences becomes gradually weaker; difficulty of hearing, and often deafness takes place. External irritations of the skin remain often a long time without effect. The patients lie motionless upon their back and mutter low to themselves; no loud talking is indulged in. The muscular strength is so much weakened, that they have constantly a tendency to slide down to the foot of the bed. The countenance altered, becomes stupid; the eye is dull, and without lustre. Also paralytical symptoms sometimes appear, as partial paralysis of the intestines and bladder; hence either involuntary evacuations of the fæces takes place, or torpor of the bowels exists; there is involuntary discharge of the urine, or retention of it, and as a consequence expansion of the bladder; and generally there is subsultus tendinum and picking of the bed-clothes; the patient constantly endeavors to remove things from his bed, which are not there.

(*b.*) Symptoms of the mucous membranes. The patient's tongue becomes dry towards evening; the base and superior surface are first affected,—the margins still remaining moist, but eventually the whole tongue becomes dry. It seldom remains clean, but frequently is covered with a thick, ropy,

pitch-like slime. A similar coat is found on the teeth and mucous membrane of the nose, which always regenerates itself anew, as often as it may be removed. The abdomen becomes tympanitic, and the pains in the cæcum more intense, the stools copious, from ten to twelve within twenty-four hours, the most of which occur during the night; in the daytime they are moderate. The evacuations have the same quality as in the second division of the first seven days' period. Towards the eleventh or twelfth day, especially in pneumonic complications, cough developes itself, which soon becomes moist and rattling, yet is connected with little or no expectoration.

(*c.*) Febrile symptoms. The skin is burning hot, and either dry and husky, or becoming moist and dissolving in colliquative sweats, with a disagreeable odor. Ecchymoses frequently appear of herpes-like blots (false petechiæ), and of dark violet color, and especially are seen on the nates and back. Striped ecchymoses (vibices) are very bad symptoms, as they very soon ulcerate and are very apt to extend in width and depth. The pulse is small, thread-like, compressible, and empty; beats from 130 to 140 in a minute. The urine is muddy, increases in specific gravity, and reacts sour; the fæces, however, are of an alkaline nature, and thus a constant contrast shows itself between the secretions of the kidneys and those of the intestines.

The febrile symptoms commonly have a definite type of distinct exacerbations and remissions, these in the morning, those in the evening. In rare cases two exacerbations and remissions take place in a period of twenty-four hours, one remission being at noon, the other at midnight. Comparing however, the symptoms of several days together, an approximation to the tertian remittent type cannot be mistaken, for the observation presses itself upon us, that the intensity of the diseased symptoms always corresponds every other day, especially in typhus which arises from intermittents. In the second half of this second period, especially on the fourteenth

day (sometimes earlier) critical symptoms appear—changes in the urine, with moisture of the skin; these symptoms are favorable.

Complications—with inflammation of the liver: typhus icterodes: rare in Germany, more frequent in southern Europe: The right hypochondrium becomes painful, swollen, and tense; jaundice developes itself.

3. *The Stage of Crisis.*—1. General crisis; the skin becomes moist, strong secretions appear, at first commonly in the evening only, but, by and by, the crisis continues longer, until the skin becomes continually soft and moist. If, however, the perspiration is to be a critical one, the pulse must become more quiet and the tongue moist, at least during its duration. The urine becomes clearer, and is discharged in greater quantity, sediments are seldom found in it.

2. Topical crisis. Instead of the former delirium, a quiet sleep ensues, after which the patients return again to consciousness as if awaking out of a long dream. The tongue becomes moist and the sooty coat of the teeth and of the mucous membrane of the nose begins to loosen itself. The cough becomes easy and the patients expectorate a phlegm like sputa cocta. The abdomen is soft, and the pains in the cæcum have disappeared. The exhausting diarrhœa subsides, and a constipation of two or three days' duration takes place. Although this favorable crisis appears, more or less violent disorders yet remain, depending upon ulcers present in the intestines, which mostly begin to heal in ten or fourteen days, but sometimes are protracted to the seventieth or eightieth day. Although convalescence is going on, the patients recover but slowly, and the following momenta are worth attention: 1st. The patients have an insatiable appetite, and hence are prone to eat too much, which acts very injuriously upon the healing of ulcers in the intestines. 2d. The sexual instinct awakens in a high degree; so as to produce frequent pollutions, nay often satyriasis.

Varieties.—1. As in measles, scarlet fever, &c., so we find here sometimes, though seldom, an abortive form. All symp-

toms of developing typhus are present, but on the fourth or seventh day, violent crisis through the skin or urine ensues, and thus the topical symptoms suddenly disappear. It would be desirable to be always able to produce this favorable termination.

2. Typhus abdominalis putridus—that is, abdominal typhus with symptoms of violent decomposition in the humors. Hæmorrhages of offensive decomposed blood ensue from the nose and rectum, hæmorrhage under the skin, vibices, ecchymosis, petechiæ. The urine is peculiarly alienated, more brown, putrifies sooner, and developes ammonia, or it shows decomposed blood, which appears as a red sediment. It has been tried to make another species out of this form, which however is improper, as a series of middle forms can be pointed out between simple abdominal typhus and putrid typhus.

3. Febris maligna sine febre. This may easily mislead the physician. The patients show only in the evening, between 9 and 10 o'clock, increased turgesence of the skin and excitement in the pulse; after midnight, these symptoms decrease again; and in the morning the skin is cool—nay, the extremities are very often completely cold, the pulse scarcely perceptible, and only towards midnight some vascular erethism appears. However, the topical symptoms of typhus are present. This condition, however, lasts but a certain time, and death mostly follows it; fever and delirium appear about thirty-six or forty-eight hours before its occurrence.

Duration of the Disease—Is in its regular course fourteen days. The crisis is between the fourteenth and fifteenth day, seldom on the ninth or eleventh, and if this is the case, mostly with fatal termination. The end is commonly also lethal when the crisis is delayed until the nineteenth or twenty-first day.

Termination.—1. *In perfect recovery*, distinct febrile crisis, which commonly holds the seven days' period.

a. General febrile crisis through skin and urine.

b. Topical crisis: uninterrupted sleep, expectoration of sputa cocta, and in typhus icterodes within twenty-four hours

two or three black stools, of soft consistence and bad odor, which, however, makes the patient feel much easier.

Besides the increased appetite and sexual instinct, the patients often suffer in their convalescence slight difficulty of hearing, with ringing and humming in the ears. These symptoms are to be watched closely, for inflammation and suppuration of the internal ear are very apt to take place.

2. *In partial recovery.*—Various disorders remain. 1. Decubitus; it is formed from ecchymosis, and by no means from gangrene of the parts. It is often very extensive, so that the sacrum appears as if laid bare. Gangrene of external parts supervenes, as of the nose, the ears, or the big toe. When these parts become blue and livid, and lose their sensibility, gangrenous destruction is at hand. 2. Gangrenous furuncles, which often appear on the inner surface of the thigh, rapidly increase, and, upon lancing, secrete an ichorous liquid. 3. A certain kind of pseudo-erysipelas, one of the worst secondary disorders, which developes itself rapidly and as fast disappears again, upon which violent delirium, stupor, &c., ensue. 4. Parotitis: Violent humming and ringing in the ears, connected with a stinging pain in the neck along the course of the nervus vagus; the neck is very tender upon pressure, and the patient separates the jaws only with pain. A small, very painful tumor soon appears, which is at first movable, and often grows rapidly. Under improper treatment, these parotid swellings disappear, after which death commonly ensues. They never resolve without medical means; suppuration takes place, which by colliquation may bring on hectic phthisis, for the abscess grows rapidly downwards, and the carotid often in four days lies denuded at the bottom of it. 5. Suppuration in the internal ear: The humming and ringing of the ears are followed by a violent stinging pain in them—accompanied by vertigo, deafness, and under the symptoms of paralysis of the brain, death may take place. 6. Intestinal phthisis, when the ulcers in the mucous membrane of the intestines do not heal. It runs its course rapidly, and is accompanied by febris nervosa hectica. 7. Perforation of the intestine: It always

takes place in the later periods only, mostly from the twenty-eighth to the sixty-fifth day, in the lower free part of the small intestine, but, according to Chomel, also in the free large intestine. The openings are always found at the bottom of an ulcer, where the muscular and serous coats are perforated. Their diagnosis is easy: sudden and extremely vehement pain in the abdomen, which swells, and becomes hard and tense; vomiting of massa herbacea; and facies hippocratica, and in consequence of the perforation and protrusion of the intestinal contents, inflammation of the peritoneum. 8. Secondary disorders in the lungs, either a simple blennorrhœa of the respiratory mucous membrane, or an inflammation in the upper lobes, or formation of tubercles. 9. Hydrops—one of the rarest secondary disorders.

3. In another disease. Intermittent fever is the only one which can develope itself, and this is but rare, and in those countries only where intermittent is endemic.

4. In death. It perhaps never ensues in the first period, but on the eleventh, fifteenth, seventeenth, or twenty-first days. The critical days may also be named fatal days. The uneven days are especially those which carry off the most patients. Death itself ensues in various ways: (*a*) in the height of the disease, by paralysis of the abdominal nervous system. The symptoms are, abdomen swelled, meteoristically tense, a peculiar pain produced by pressure upon the cæcum. The stools (from twelve to sixteen in twenty-four hours) often pass involuntarily, are thin, mixed with dissolved offensive blood. The countenance alters more and more, is covered with cold sweat, while the body feels constantly hot, the pulse is small, thread-like, worm-like, (puls. vermin.); singultus, subsultus tendinum come on. (*b.*) Through secondary disease. (*c.*) Parotitis developes itself and passes into destructive suppuration. (*d.*) In other cases hectic fever may come on. (*e.*) Excrescences form upon the intestinal mucous membrane; after the separation of the scab, a part of the mucous membrane is lost, which is not restored, but ulceration takes place and the patients die of abdominal phthisis. The symptoms in this case are the follow-

ing: the diarrhœa continues, the peculiarly purulent masses appear in it, the patients have a permanent pain on the lower part of the small intestine, and the fever becomes hectic (violent heat towards evening, exhausting colliquative sweat until morning, an irritated frequent pulse). Where these symptoms appear, it generally terminates in fourteen days.

Etiology.—The disease is most frequent in the blooming years between the 18th and 26th; before puberty, and after the above mentioned period, it is rare. In old persons it is never found. Sex, also, seems to influence its frequency; for it is more frequent with women, especially young girls at the age of puberty, than with men. The proportion is from two to three. A peculiar distemper of the abdominal nervous system increases the susceptibility to the disease. Individuals, laboring under hysteria, epilepsy, or distemper of the ganglionic system from worms, are principally the subjects of attack.

Cause.—External momenta.—Exhaustion of the vital power through excessive exertion of the muscular action; also from the genital system through onanism and excess in coitus; through continuing diarrhœas, caused perhaps by misuse of evacuating remedies; through depressing passions; too long continued use of narcotics, (especially of cherry-laurel water and belladonna; as these remedies, besides their depressing influence upon the nervous system, at the same time induce decomposition of the blood.) If, under such circumstances, a general outbreak of the disease is to take place, a peculiar atmospheric constitution is required. Rapid changes in temperature, sudden transitions of weather, the decomposition of air impregnated with effluences from animal and vegetable matter. The predisposition to the disease increases under such circumstances to the utmost, if an individual, besides the influence of the nervous disease, at the same time is exposed to debilitating influences, such as bad nutriment; namely, the use of salted, half putrid meat. The disease may become contagious. The media of contagion are the exhalations of the patients; namely, the alvine evacuations, those from the

skin, and perhaps the breath; hence this disease is frequently contracted by sleeping with or coming in contact with a person affected. On the other hand, however, a predisposition is always requisite.

Anatomical Facts.—1. Changes in the ganglionic system: If the patients die while the disease is at its acme, between the seventh and fourteenth days, the ganglia of the abdominal nervous system, especially the plexus solaris, are found to be swollen, enlarged, considerably engorged with blood, and consequently very much reddened. The redness, however, is not the florid one of inflammations, but it merges from purple red into livid; the same changes take place in the nerves, which connect the single ganglia. When death takes place somewhat later, the ganglia are likewise swollen, but their texture is harder, often of a fibro-cartilaginous nature, their color is whiter than in their healthy state. These changes have hitherto been overlooked. 2. Changes upon the abdominal mucous membranes: These have caused the assertion that abdominal typhus is identical with inflammation of the intestines; (namely, inflammation of the glands of Peyer); that this assertion, however, is invalid, is proved by merely observing the course of both diseases. In abdominal typhus, no symptom of inflammation is found until the fourth day of the disease; on the fourth day, symptoms appear that are totally absent in inflammation, which continue until the seventh day, at which time the nervous stage has developed itself. As regards the diarrhœa of abdominal typhus, we see that it is violent with one individual, while it is less so with another, and that, indeed, the intensity of the disease is in direct proportion to its violence. These changes in the intestinal function have of course a distinct diseased process for their foundation, not, however, the inflammatory, but an exanthematic one. The sectio cadaveris puts this fact beyond doubt. The exanthem has its appointed place in the lower half of the small intestine; does not easily pass over the valve of the colon into the cæcum, neither, however, passes upwards beyond the second third of the small intestine, and it is more

diffused, the nearer it comes to the lower end of the intestine. In its simple course it forms at first a semi-globular nodule, which, later, on its top, gets a plate, or navel-like impression. This nodule is, in the beginning, covered with the intestinal mucous membrane, here after sometime an eschar is formed of grayish color merging into black, (as eschars are formed in carbuncle and anthrax), around which the margin of the nodule is elevated like a wall. Subsequently the eschar separates, which generally takes place from the tenth to the fourteenth day, and an ulcer is formed in its place, which in a regular course cicatrizes; in the opposite case, however, it continues and leads to abdominal phthisis. The nodules are of the size of a pea, and stand either singly or in groups, and then become confluent, as it is frequently found in small-pox. We now perceive, standing over the intestinal niveau, elevated surfaces full of breaks, of circumscribed form, and on their top, according to the number of confluent nodules, a corresponding number of eschars are seen. As to the manner in which the eruption developes itself, nothing is known with certainty. Whether, for instance, the eruption appears all at once between the fourth and seventh day, as in variola, (?) or whether additions are made during the nervous stage, perhaps towards the fourteenth day, as in varicella and varioloid, nothing is at this time decided. The probability, however, is that the eruption takes place within a definite period, between the fourth and seventh day, that the formation of eschars follows during the nervous stage, and that at the fourteenth day, either separation of the eschar and recovery or intestinal phthisis ensue. 3. Changes upon the respiratory mucous membranes: It is reddened from the bifurcation of the trachea into the minute bronchial tubes.

Prognosis is very unfavorable. One-third of the patients generally die. The proportion of mortality is worse than in the plague; of one hundred individuals thirty-three perish. It depends—1. On the causal momenta. Where the disease originated from exhaustion of the vital power, excess in coitus, continued use of purgatives, or narcotics, the prognosis is al-

ways worse than where atmospherical influences caused its generation. 2. On the stage. If the physician is called in the first stage, and acts properly, much can be done; if later, but little benefit can be expected. 3. On the regularity of its course. Where this exists, it is favorable; when the first stages are prolonged, it is very unfavorable. 4. On the intensity of the nervous symptoms. The more speedy the general collapse, the greater the alteration of the countenance—the worse is the prognosis. Twitching of the tendons, picking of the bed-clothes are very unfavorable. 5. The highest importance should be attached to stools. The earlier they appear, the more frequent they are, (three or four times in twenty-four hours is the rule); the more blood is mixed with them, and the darker and the more dissolute it is, the more we have to fear. Hæmorrhages are not absolutely fatal. 6. On the condition of the pulse. The more frequent it is, the more unfavorable, particularly if it loses at the same time its energy. 7. On the nature of the fever. The more distinct its remission, the more it approximates the type of tertiana, the more favorable it is. 8. The state of the respiratory organs. If these participate, the symptoms will not be so favorable, especially if it take place towards the sixth or seventh day; cough, if it occurs towards the eleventh day, is of less moment; its entire absence, however, is more favorable. 9. Appearance of the tongue. It is favorable when the margins and the tip of the simply dry tongue continue moist, and it retains its breadth; it is unfavorable, however, when the tongue becomes quite dry, more contracted, chip-like, and with stammering speech can utter no word distinctly. 10. Decubitus. The earlier it appears, the more unfavorable; still worse is the early appearance of vibices, especially when they rapidly grow. 11. Individuality. In very decrepid individuals it is unfavorable; also very plethoric individuals are very much in danger, on account of easily supervening apoplexy. 12. Crises. When they appear in due time, are harmonious and constant, they are favorable. Irregularity of the symptoms during the critical period is very bad. 13. Perforation of the intestine is absolutely lethal. 14. Affection of

the breast, formation of tubercles, pseudo-erysipelas, make the prognosis very unfavorable. 15. In convalescence. We are to be led by the principle that the detection of unfavorable symptoms is of more importance in prognosis than a series of good ones.

Treatment.—Prophylaxis.—Since the contagion is fixed to the exhalations, sedes, &c., of the patients, we must endeavor, in order to avoid its transference, to decompose the exhalation and the alvine secretion as rapidly as possible. This is done by means of chlorine or pulverized coal, or fumigation of muriatic acid, in the vicinity of the patient; evaporation of alcohol and frequent renovation of air. For persons that must often be near the patient it is advisable to spit out their saliva, often to rinse their mouths with vinegar, to sleep in another room, to enjoy fresh air, observe the greatest cleanliness, and avoid all depressing influences.

Treatment of the Disease itself.—When symptoms of the received contagion appear, as nausea, headache, weariness, chilliness, an attempt may be made to remove it by means of an emetic. Tartariz. antim. may be administered, in combination with ipecac., in order to avoid its action upon the bowels, and an infusion of linden-blossoms or verbascum given for drink, and the patient advised to stay in bed. When the disease makes progress notwithstanding, it cannot be cut short, but will run through its stages. In rare cases where we get to treat the patients from the first beginning of the disease, it may happen that the disease perishes abortively on the fourth or seventh day, especially in forms with gastric symptoms, as nausea, inclination to vomiting, violent headache. Also, here an emetic may be given with advantage; but ipecac only should be used, to avoid laxative effects. In the other case, where these symptoms do not appear, the treatment has to be modified according to the various stages.

First Stage of Irritation.—The violent vascular irritation has to be moderated by suiting remedies, and where the disease is of a sthenic character, even venesection of 8 or 10 oz. may be necessary. Internally, we give the saline medicines, cit-

rate of potassa either by itself or as effervescing draught, (potio Riverii); for drink, a weak lemonade or sugar-water. If, however, reaction is from the beginning of an erethic character, we give aqua oxymuriatica (chlorine) ℥j. in decoction of althæa. Constipation has to be removed by proper clysters; e. g. vinegar with some castor-oil. When pains in the cæcum appear, we must try to moderate them by frictions of ol. hyoscyam. coct. with unguent. hydrargyr. fortius. If they become very vehement, apply leeches, and afterwards emollient fomentations of linseed, with cicuta or herb. hyoscyam. To this comes a strictly antiphlogistic diet, gruel, barley-water, simple mucilaginous drinks—nothing irritating.

Treatment of the Complications. 1. The violent congestions towards the head with furibund delirium. Here general bleeding has been recommended; but it is advisable only where the fever is of a sthenic character; in the opposite case it certainly does more harm than good. The best is to apply sixteen or twenty leeches behind the ears, and cold fomentations to the shaven scalp. But where violent catarrhal affections exist, these fomentations have to be made of lukewarm vinegar and water; otherwise take snow and ice or Schmucker's fomentation.* Where these fomentations are not agreeable to the patient, they have to be stopped. Besides this, derivative remedies must be applied—sinapisms to the calves of the legs and soles of the feet, clysters of one-third vinegar and two-thirds decoction of bran. Internally give acids, muriatic acid ℥vi., to decot. althneæ ℥vi.; sour drinks, lemonade, diluted sulphuric or phosphoric acid.

2. Pneumonic symptoms. Where symptoms of inflammation of the lungs exist, the treatment has to be directed against it. If the inflammation is confined to a small spot, topical bleeding of the inflamed part and lukewarm frictions

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* Schmucker's cold fomentations consist of 4 lbs. water, 2 lbs. acetum vini., 1 oz. nitre, and 4 oz. muriate ammon.; or according to Richter, water lbs. 4, acetum vini lbs. 4, nitre oz. 16, muriate ammon. oz. 8. F. R.

of ol. hyoscyam, unguent. digitalis, and unguent. hydrarg. should be applied: if, however, the inflammation extends to a larger part of the lungs, and the fever is of a sthenic character, general bleeding besides topical is indicated. Internally mucilaginous remedies, emulsions, barley-water drink, and antiphlogistic diet.

If at the end of this first seven days' period, an attempt at a crisis should appear, which, however, is mostly but momentary, and rarely sufficient in degree, it must be properly supported; for instance, critical epistaxis is to be encouraged by the inhalation of warm vapors; crisis of the skin by means of pulv. Dover., infus. flor. verbasci or sambuci.

2. *The Nervous Stage.* When these momentary crises stop, and the disease passes over into the nervous stage, our whole attention should be directed to the specific diarrhœa, the accompanying fever, and the tendency to dissolution of the blood. Various remedies have been tried, tonics and astringents, logwood, rhatany, &c.; narcotics, especially opium, the preparations of iron, muriate of iron, as recommended by Autenrieth,* but none have proved satisfactory. The best effect was obtained from injections of starch with chlorine, and in the evening when delirium and restlessness appear, an addition of 20 or 30 drops of laudanum. Locally, when violent pains in the cæcum are present, make use of topical bleeding, and afterwards of fomentations of emollient herbs; but where there is a disposition to tympanitic swelling of the abdomen, apply irritating frictions of volatile liniment, with opium, linimentum saponis compositum. Internally, aqua oxymuriatica, (chlorine) either by itself in a mucilaginous vehicle, or according to circumstances, with an infu-

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* Autenrieth gave murias ferri. gr. VI., XII., XVI., in twenty-four hours Pammer gave from 5 to 10 grains of it every two hours in powder; an anonymous writer in Rust's Repert., gave tr. fer. mur. ℥IV. in aq., menth., pip., during the day, with the happiest effect. Vide Richter's Mat. Med., Vol. V. p. 64. F. R.

flor. arnicæ. Where symptoms of dissolution of the blood are present in a high degree, we administer the pure muriatic acid, ℥ss. to ℥js., or phosphoric and sulphuric acids in drinks. When in this stage bloody stools appear, the stronger astringents, as alum gr. x. to xx., with gum arabic are proper. Externally, the body should be sponged with vinegar, with diluted sulphuric acid, combined with whiskey or spirits of wild thyme.

The diet may be more nourishing in this stage; broth with the yolk of an egg; for drink, infus. flor. sambuci, light punch without lemon-juice; and in great debility, where pneumonic symptoms do not contraindicate it, wine, especially claret, but in small portions only, should be used, say three or four table-spoonfuls in a pint of decoction of barley or malt.

Third stage of crisis. Close attention should be paid in this stage to the crisis. Rarely is the eleventh day of importance, but more particularly so is the fourteenth, seventeenth or twenty-first day, as the crisis is apt to appear on one of these days. As soon as premonitory symptoms of the crisis appear, the whole attention of the physician must be directed to the production of a true or complete crisis. Individuals of a rigid, husky skin, have every evening to be placed in a bath of aromatic herbs, and warm water has to be poured over the free part of the body for five or ten minutes, then the patient has to be rubbed with a dry cloth and placed into a warm bed. Blisters may also be applied, but they are contraindicated when ecchymosis and decubitus are present. The effect of these external remedies must be supported by internal ones, as infus. valerian, with liquor ammoniæ acet., or liquor cornu cervi succin.;* further by small do-

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* *Liquor cornu cervi. succinatus.*
℞ Acidi succini. ℥j.
solve in
Aquæ distillat. fervidæ, ℥viii.
solutioni immitte
Ammoniæ carbon. pyro-oleasi. q. s. ad perfectum saturationis gradum.
Filtra et serva.
Dosis: drops twenty or more. F. R.

ses of camphor, four or five grains in twenty-four hours in powder or mixture. Where the crisis is going on, warmer covering and a light aromatic tea are sufficient, instead of those remedies. The symptoms upon the intestinal mucous membrane commonly continue and must be counteracted by injections, (without opium, however), with the addition of eight or twelve drops of the liquid acetate of lead. To give this remedy by the mouth is not advisable, on account of its effects upon the stomach. When pains in the cæcum are present, when the mucous, cream-like evacuations again appear, when the pulse becomes strong, the antiphlogistic method before explained, has to be returned to.

In the treatment of the hectic fever, Peruvian bark is the principal remedy, in combination with mucilage where intestinal irritation is present; where such is not the case, with acids. Caution, however, is necessary, and the sweats must not suddenly be suppressed, for this can seldom be done without bad consequences. The diet should consist of easily digestible but nourishing victuals, broth, young meat, &c.; the drinks, of good old wine and water. The patient has to be watched in regard to his sexual instinct; for it must by no means be gratified.

Treatment of some varieties. Where there are symptoms of excessive dissolution of blood, as in febris putrida, the source of the colliquative hæmorrhage must be stopped as soon as possible. In hæmorrhage from the nose, cold fomentations may be applied to the root of the nose, and dossils o lint moistened with aq. vulneraria Thedenii* pushed into it. Where hæmorrhages under the skin, ecchymoses, vibices, petechiæ are existing, the surface has to be sponged with acet.

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* Aqua vulneraria Thedenii.
℞ Aceti vini crudi, ℔ssiij.
Spirit. vini rectificati, ℔jss.
Acidi sulphurici, ʒj.
Aqua distillat. ʒv.
Mellis despumati, ℔j. Mix. F. R.

vin., with spirit. serpilli or whiskey—in urgent cases even with diluted sulphuric acid.

In complication with inflammation of the liver, topical bleeding, frictions with ung. hydrarg., and ol. hyoscyam. are indicated.

In the second stage, suppression of urine often takes place and is here a nervous symptom. The secretion of urine is either entirely wanting or is but scanty. The bladder has to be examined daily, and if necessary the catheter to be introduced; over the bladder unguent. camphor. and tinct. cantharid. may be rubbed in.

Of the secondary disorders we mention only the following five forms, as the others have to be treated according to general rules.

1. *Decubitus* is cured with more difficulty, than prevented in its development. The bed of the patient should be soft and smooth, the patient must be washed after each alvine evacuation with a sponge dipped into warm water, the parts lain upon must be washed with kirschwasser (a strong liquor) and lard, and the patient lie as much as possible on his side. After decubitus has developed itself, the ulcerating surface has to be dressed with unguent. saturn. with a small addition of pulv. opii; when the ulceration passes over into gangrene, it may be washed with aromatic infusions and decoct. cinchonæ. If the character of the ulcer is a mixed one, the treatment must be so likewise.*

6. *Gangrenous furuncles.* In the beginning they must be dressed with aromatic fomentations, and opened on the top

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* Unguentum Autenriethii contra decubitum.

℞ Corticis quercus, part 1.

Aquae, part 8.

Coque ad dimidii partis remanentiam.

adde

Acetum Plumbi.

Quamdiu præcipitatum aritur, quod in colaterio charta emparetica tecto impositum cum aqua communi sedulo elotum in tantum siccetur ut pultem unguinosam præbeat, quæ loco frigida servanda est.

as soon as pus shows itself. Afterwards they have to be dressed with styrax ointment,* and the aromatic fomentations must be continued.

3. *Pseudo-erysipelas* generally terminates fatally; is treated with dry warmth, scarification, and over them aromatic fomentations perhaps might prove more successful.

4. *Parotitis* deserves our full attention on account of its danger. The following treatment has proved best. When a small painful tumor makes its first appearance, from eight to ten leeches must immediately be applied to the painful spot, and then frictions of ol. hyoscyam. If the tumor increases still afterwards, the topical bleeding should be repeated, and narcotic emollient fomentations applied. It should be opened as soon as possible.

5. *Inflammation of the internal ear.* A good number of leeches are to be put behind the ear, and after abscess has formed, we must endeavor to evacuate it externally as soon as possible. For this purpose we make emollient injections and pass vapors into the ear. After evacuation has taken place, put the patient in such a position as to promote its further discharge and keep the ear clean, and lastly, use gentle astringent injections.

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* Unguentum de styrace. ℞ Styracis liquidi, elemi, ceræ flavæ aa ℥viiss. Colophanii ℥ij. Olei olivarum ℔ssijss. Mix: fiat secundum artem unguentum.

ART. V.—*Cancer of the inferior lip and corresponding maxillary bone: Cure after two operations, performed at different periods.* By MARTIAL DUPIERRIS, M.D., of Havana.

D. Francisco Alvarez, born at Cadiz, aged 50, an ex-officer of the custom-house in Havana, of bilious-sanguine temperament, and endowed with a pretty strong constitution, consulted me, on the 19th July, 1843, for an affection of the lower lip, which was attended with horrible suffering.

I learned that a small pimple had first made its appearance a short distance from the left commissure of the lips, and had been followed very soon by an ulcer attended with lancinating pains, which gave the patient not a moment's repose. This ulcer extended towards the right side, involving a large portion of the lip; it also attacked the cheek internally. Divers means which were prescribed by a professor of this city, failed to allay the sufferings of the patient, or check the progress of the disease; on the contrary, the pains augmented in severity, the ulcer enlarged daily, and bled upon the slightest touch.

When the patient presented himself to me, the surface of the ulcer was grayish and unequal, the edges everted and hard, and the discharge from it of an ichorous nature. It had destroyed a large portion of the soft parts comprised between two lines: one drawn on the right side, from the free border of the lip, about ten lines from the commissure, to the centre of the hyoid bone; the other, beginning at the left commissure, and pursuing a similar direction until it joined the first; the triangular space thus marked out, presented the exact form of the ulcer externally. Internally it had invaded the left cheek as far as the anterior edge of the masseter muscle, involving all of the tissues except the integuments. The first two molars of the right side were wanting in the lower jaw. The tissues adjacent to the ulcer were hard, red, and painful.

The patient possessed a good deal of courage, and having been attended by me 15 years before, in the Island of Por-

to Rico, during an attack of typhoid fever, which came very near proving fatal to him, he begged me earnestly to do something to rid him of his fearful malady. Encouraged by such a disposition on the part of the patient, I did not hesitate to undertake the following operation, which was performed on the 23d of July, 1843, with the assistance of Dr. Coronado, licientates Herrera, Cabellero, Otero, and one of my students, and in the presence of a few friends of the patient.

The patient being seated on a firm chair, and the facial arteries, as they pass over the jaw, compressed by an assistant, I made an incision, beginning at the free edge of the lip, three lines from the right commissure, and proceeding downwards to the middle of the os hyoides; a similar incision, commencing at the commissure of the left side, joined the first at an acute angle; a third was carried from the left commissure, in the direction of the superior dental arch, to the anterior edge of the masseter, and from the extremity of the latter I made a fourth, which circumscribed all the affected parts, and became continuous with the second; lastly, a fifth incision was carried from the right commissure to the masseter of the same side. Torsion was applied to the arteries, which bled profusely. After having dissected out carefully all the morbid parts, I discovered that the bone was slightly affected with cancer; the periosteum had disappeared over a space of three lines towards the symphysis, on the left side. After having scraped the bone until it presented a healthy aspect, I cleansed the flaps, approximated that of the left side as closely as possible to the one on the right, raising up the former towards the flap made by the transverse incision of the cheek, to which I united it by means of eight points of the twisted suture. The mucous membrane was retained in contact with the integuments of the free edge of the artificial lip by five points of the interrupted suture.

After the operation, Alvarez had fever which required bloodletting and a continuance of the diet that had been prescribed. Cicatrization occurred every where except at the upper part of the junction of the two lateral flaps; this point remained

open in spite of every thing I could do. Twenty days after the operation, the artificial lip might have been said to be natural, as nothing could be perceived save three linear cicatrices, and the ulceration just mentioned, which, three months afterwards, from its character and extent required an operation of far greater severity, which I shall now describe.

At the bottom of the wound, something hard could be felt with a probe; this was the maxillary bone affected with cancer, or rather the point where this terrible disease renewed its ravages. I therefore prepared the constitution of my patient in a suitable manner, and fixed the operation for the 17th October. Dr. Coronado, licentiates Herrera, Muezes, &c., and one of my pupils, kindly lent me their aid a second time.

The patient being fixed firmly to a seat, incisions were made through the soft parts in the same direction as at the first operation, only they were prolonged as far as the thyroid cartilage, in order to remove all that might be found affected by the rapid progress of ulceration within a few days. The flaps being dissected backwards, exposed about six inches of the lower jaw; the third left molar was extracted, and the bone divided by means of the chain-saw; the second molar of the right side being absent, the saw was applied at that point, but the extremity not presenting a healthy aspect, about two lines more were removed, which left the bone perfectly healthy in appearance. A loop of thread was then passed through the superior part of the genio-glossi muscles, and by means of a strait bistoury, I removed that portion of bone isolated by the saw, carrying the knife close to the concave surface.

In the course of the operation, torsion was applied to four arteries, and hemorrhage was checked without difficulty by lotions of vinegar and water. The wound was large and hideous; six needles and the twisted suture were applied at proper distances, and the mucous membrane was fixed to the skin by the interrupted suture, as in the first operation. The integuments were by no means abundant, but were sufficient to close the great opening necessarily made in order to destroy the malady.

The patient went to bed; an anti-spasmodic mixture was given him, with directions as to diet. Acute pains, and very considerable excitement supervened; these were allayed somewhat by v. s. to 16 ounces. Compresses wet with resolvent lotions were kept constantly applied. On the third day, there was difficult deglutition, and obstructed respiration; a tumor, the size of a pigeon's egg, had formed at the lower part of the cicatrized wound, and when opened, gave exit to a considerable quantity of mucus slightly tinged with blood; a piece of lint was inserted in the opening to prevent a re-accumulation of matter.

On the 23d, the two lower needles were removed, allowing the threads to remain; on the 26th, the other needles were likewise withdrawn, the cicatrization being complete save at the inferior part where the tent was introduced. This was removed some days afterwards, and nothing else occurred. In a few days, we could perceive that the extremities of the bone were losing their hardness, and becoming covered with vascular granulations, which on each side adhered to the labial mucous membrane. A month subsequently, a pretty firm substance had formed in the interval between the two ends of the bone; but unfortunately this work of nature was suddenly arrested, and the tissue is not sufficiently firm to consolidate the parts like the lost bone. I can attribute this arrest to nothing but the advanced age of the patient.

Remarks.—I have not dwelt minutely on the attention required by these two operations, because nothing extraordinary occurred. I will only observe that the rapidity with which the wounds cicatrized, and the absence of any accident subsequent to these important operations, are due, it seems to me, to the method which I employed, a method which Professor Serre, of Montpelier, has so well explained. It is easy to see that any other mode of autoplasty, would not have enabled me to perform the second operation with a chance for such rapid and brilliant success. This is particularly evident from the present state of Alvarez who, at this

time (Feb. 15), four months after the second operation, not only enjoys good health, but moreover does not present the least appearance of a return of the affection. It is true, the deformity is striking; but was it possible to avoid it after two operations of so grave a character? No one will presume to say so. Hence the patient does not cease to evince his gratitude; and the beautiful results, which the progress of surgery has enabled me to bring about, render me happy in thinking that, for the third time, I have saved the life of an unfortunate man, who has a family dependent on him for support.

The portion of bone removed, and which I preserve, is porous (*criblée*) for an extent of three inches, nothing being left but a thin lamella of the posterior plate.

I seize the opportunity to mention here that for twenty years I have used cold water, acidulated with vinegar, to deterge wounds, whether produced by violence, or in the course of numerous operations performed by me, and have never had to deplore the occurrence of tetanic symptoms, nor the absorption of air by the veins, although the former of these affections is very common in the countries where I have exercised my calling. I shall forbear adding any explanation of the mode of action of this remedy, which I think may be considered as a true prophylactic against the development of tetanus; yet, in my opinion, a satisfactory explanation could be given.

Havana, February 15, 1844.

REVIEWS.

ART. VI.—*The Anatomy, Physiology and Pathology of the Human Teeth, with the most approved methods of Treatment; including Operations and the method of making and setting artificial teeth: with* 30 *plates.* By PAUL B. GODDARD, M. D., M.A.N.S., M.A.P.S., Demonstrator of Anatomy in the University of Pennsylvania, Lecturer on Anatomy, &c., &c. *Aided in the practical part* by JOSEPH E. PARKER, Dentist. Philadelphia: Cary & Hart. 1844. 4to. pp. 227.

It was the purpose of the author of this very well executed volume to render it a pandect of dental knowledge. He has collected into it whatever has been ascertained concerning the structure, physiology, and diseases of the teeth, as well as the remedies for the various ills which assail them, and has embellished his work with a profusion of drawings, by which all has been done that art could accomplish to make the subject intelligible. The design of the author seems to us to have been carried out successfully, and with judgment and good taste. The work strikes us as precisely such an one as must delight the heart of the young dentist, who aspires to the reputation of learning in his profession. Nor is this the only class of readers for which this treatise possesses attractions. In this country, where the distinction between physician and general practitioner, and even between physician and surgeon is not known, but every doctor must be at once physician, surgeon, accoucheur, and dentist, some skill in

the management, at least in the extraction, of the teeth, is held to be a necessary professional accomplishment. The first operation the student, commonly, is set about performing, after he enters the shop of his preceptor, is pulling teeth. Without any knowledge of their anatomy, his reliance, of course, is on the strength of his *pullekin* and his right arm. In time, and after inflicting much needless pain, and, perhaps, injuring many jaws, he becomes, by dint of mere practice, a good dentist, so far as drawing teeth is concerned. Now a knowledge of what is contained in this compendious work would save patients much suffering, and the young practitioner many mortifications. With this persuasion, and in view of the general necessity there is for physicians engaging more or less in the practice of dentistry, we have undertaken to present an account of such parts of the volume before us as are interesting to the general practitioner.

In a work professing to give a complete account of the teeth, Dr. Goddard felt it proper to begin at the beginning, and hence has devoted a chapter to the history of the art of dentistry. We shall not follow him through this, nor shall we stop to notice the chapters which treat of the anatomy of the maxillary bones, but proceed directly to the teeth.

These important appendages to the human body belong, it seems, to the *dermoid* or cutaneous, and not to the osseous system, as we were taught by Bell, Fox, and others. They are attached to the jaw by the alveoli, which come and disappear with the teeth. Four distinct structures are distinguishable in the teeth, namely: the *enamel*, the *ivory*, the *crusta petrosa*, and the *dental pulp*, which, exhibiting a marked difference in character, require different modes of treatment in the prevention or management of their maladies.

"The enamel is evidently a secretion or crystalization of earthy substances from a solution." It is thickest at the points of the tooth, where its growth begins, by more points than one, and from which it spreads gradually over the whole surface. Where the two formations meet there is a line formed, and if the union between them is not perfect a fissure is left,

which often reaches nearly or quite to the ivory, affording a nidus for acid matters which induce decay in the tooth. The enamel is composed of exceedingly minute hexagonal prisms, which under the microscope are seen to be piled obliquely one upon another, waving with a gentle undulation, and presenting an appearance not unlike "the basaltic columns of the giant's causeway." They are held together by animal cement, which amounts to only one per cent. of the substance of the enamel, nearly the whole of the remainder being phosphate and fluate of lime, and carbonate of lime.

The ivory forms the greater part of the tooth, and is usually spoken of as the dental bone. For many reasons, however, Dr. Goddard does not consider it an osseous tissue. He gives in parallel columns the points of difference between bones and teeth, as laid down by Serres. They are as follows:

A BONE	A TOOTH
Passes through a cartilaginous stage.	Passes through no cartilaginous stage, but is a transudation from the surface of the pulp.
Has a periosteum.	Has no periosteum.
Is affected by rachitis and the other diseases of the osseous system.	Is not affected by rachitis or the other diseases of the bones.
Is destroyed by concentrated nitric acid.	Is *not affected* by concentrated nitric acid.
When calcined, leaves a white residue.	When calcined, leaves a bluish residue.
Is destroyed in extra-uterine conception.	Remains untouched in extra-uterine conceptions.
Is vascular.	Is not vascular.

Bones, moreover, decay much more quickly after interment than teeth, and the diseases of the two tissues offer the least possible analogy.

When a tooth is broken, the ivory presents a white satiny appearance due to its microscopic structure, which consists of tubuli of the 1-4620th of an inch in diameter. An idea of the very small size of these pipes may be conceived when it is stated, that the diameter of the blood globule averages

1-3000th of an inch. The ivory contains more animal matter than the enamel, and consequently a smaller proportion of calcareous matter. It does not lose in bulk or form by being deprived of its earthy ingredients by maceration in a dilute acid. In these respects it resembles bone more than does the enamel, but it still falls short of bone, in animal matter, in the proportion of 28 to 33. It is secreted by the external surface of the pulp, and being destitute of nerves or a circulation undergoes no change when once formed, unless attacked by a chemical or mechanical agent.

The *cementum*, or *crusta petrosa*, the last in its appearance of all the constituents of the teeth, is also a secretion, being deposited by the periosteal covering of the fang. Covering the fang and neck, its thickest point is on the fang, and its thinest where it joins the enamel. In composition it is intermediate between bone and ivory, containing more animal matter than the latter and less than the former.

Of the pulp the following description is given by our author:

"This, in the perfect tooth, is the remains of a substance which once formed the matrix of the growing tooth, taking the form of its ivory, which is secreted from its surface, and finally diminishing in size, so as just to fill the dental cavity. It is composed of a granular matter, which is invested by an exceedingly delicate membrane or *epithelium*, and held together by a delicate cellular tissue. It is highly vascular, receiving an arterial branch from the foramen in the end of the fang, and transmitting its effete blood by a vein, which escapes by the same aperture. An idea may be formed of the tenuity of these vessels by stating, that besides the artery and vein, this foramen (just large enough to admit a human hair) also gives passage to a nervous filament, from the fifth pair or trifacial, which forms a multitude of loops in the substance of the pulp, and confers upon it an exquisite sensibility. The surface of the pulp keeps the ends of the tubuli of the ivory bathed in a transparent and alkaline halitus or serous fluid, which traverses the tubuli by capillary attraction, and keeps the tooth in a moist and *living* state. This degree of vitality, which is very low, assimilates the condition of the tooth somewhat to that of the crystalline humor of the eye, which

seems to have a species of independent vitality of a very low grade, living as it were by the imbibition of the *liquor morgagni*, in which it is bathed. The ivory of the tooth formed by the pulp, depends ever after upon its integrity for existence, except as a foreign substance. Its only connexion with the body is by means of the serum filling its tubuli, supplied by the surface of the pulp, and there is but little doubt, that this fluid having reached the under surface of the enamel, continues to pervade it also by means of the delicate membranous matter between its prisms. The cementum possesses minute vessels which penetrate it from the periosteum.

"If the pulp is destroyed by any means, it decays, and the tubuli absorbing a morbid fluid, gives the tooth a dark blue color. Sometimes, when this occurs, the tooth becomes painful and requires extraction; and it is broken, immediately after the operation the decomposing pulp exhales the very quintessence of fœtor. If a tooth be extracted and broken, immediately after death from drowning or strangulation, the pulp will be found almost black from congestion, and sometimes the vessels will be found to be ruptured, and extravasated blood will be discovered between the pulp and the parietes of the dental cavity. The blood globules too large to enter the tubuli, being broken or dissolved, may stain the ivory for some depth. Such cases have been recorded, and have induced the observers to conclude (very erroneously) that ivory was vascular."

So much for the minute anatomy of the teeth. We pass over nearly all that our author gives on this subject, as foreign from our design in the present article; but we cannot forbear to copy his account of the cause of the shedding of the temporary teeth, a subject which has been not a little discussed by physiologists. It is owing, according to his view, to the death of the tooth, produced by the loss of its arterial supply. He remarks:

"When the permanent tooth impinges upon the end of the fang of its predecessor, it cuts off its supply of arterial blood, thus producing its death. This is followed by an absorption of the end of the fang to a greater or less extent, rendering it loose and easily removed. This absorption does not occur in the tooth, as it is now an extraneous body, but is perform-

ed by the surrounding tissues, the action of which is excited by the irritation of the rising permanent tooth. During the existence of the temporary set, each side of the lower jaw possesses three arteries, one to supply the bone, a second to supply the germs of the permanent teeth, and a third for the temporary set. When the temporary teeth are shed, this last artery is entirely obliterated."

But we hasten to notice that part of the volume which treats of the diseases of the teeth.

The enamel is subject to fracture, cracking, denudation, and erosion, the remedies for which are various. For cracking, if the fissure be so large as to admit of foreign substances, our author recommends first drying the tooth, and then keeping it moist for a few seconds with a solution of mastic in alcohol, by which the crack will be filled and the ivory defended for a long time from the action of corrosive fluids. The file is to be applied to remove sharp edges of the fracture, but this is an instrument which is always to be applied with caution, since the exposure of the ivory leads to decay and loss of the tooth. For erosion, if deep, plugging is the remedy; but if superficial, treatment is not always required, and it may be sufficient to direct constant washing of the mouth with a weak alkaline solution, which will neutralize any acid secretion and diminish the rapidity of the decay.

Decay, or caries, is the great disease of the teeth, and the principal seat of it is the ivory. It is not caries such as affects the bone, for not being vascular, the ivory is not subject to the pathological changes through which the osseous tissue passes in the process of decay. The decay of a tooth seems to be due to a chemical agency. If from original imperfection in the enamel, or by fracture or erosion, the ivory be denuded, any acid matter coming in contact with it must lead to a wasting of its body. Our author thus relates the series of changes:

"The acid having reached the surface of the ivory by a fissure or hole, commences to act upon its calcareous portion, after neutralizing the alkaline serum which pervades its tubuli.

It first dissolves the calcareous contents of the tubuli, and then the earthy portion of the ivory in their interspaces. The animal portion of the ivory, thus deprived of its calcareous matter, becomes soft, and usually either brown or black, and is gradually mixed with and carried off by the saliva. There is no doubt, at present, that the process is hastened after once an open cavity is formed, by the presence of either animal or vegetable parasites in the decayed cavity, which is an exceedingly proper nidus for such forms, and it is even supposed by Henle (Encyclopedie Anatomique, par A. J. L. Jourdan) that this may account for the spread of the decay from one tooth to another. This process is sometimes exceedingly insidious, in consequence of the original opening in the enamel maintaining its primitive size, until great destruction of the ivory has taken place beneath it, when it suddenly breaks in and a cavity is formed, where a few hours before none was suspected. In the case where the decay commences on the surface of the ivory under the enamel, the explanation of the process is slightly different. In this case there is no perceptible fissure or hole in the enamel, but a want of union between its basalt-like columns, a porous condition indicated by a slight and scarcely perceptible opacity. The ivory at the bottom of this porous spot is bathed in an alkaline serum furnished by its pulp, whilst the outside of the tooth is constantly exposed to the contact of either acid or acidifying substances. These are the conditions most favorable to the occurrence of *endosmosis* or transudation, the alkaline matter exuding and the acid intruding simultaneously. The ends of the tubuli thus bathed in acid, take it up by capillary attraction and carry it in the direction of the pulp, dissolving the calcareous contents of the tubuli. The process after it has thus commenced, is the same as that just described. The course of the tubuli and their capillary attraction for fluids, causes the decay to progress in the direction of the pulp, hence its investment is soon exposed, and inflammation occurring, toothache is the result. The decay, if suffered to progress, destroys first the crown and pulp, *sometimes* almost without pain, and then becomes nearly stationary, because the sides and not the ends of the tubuli are presented to its exciting cause; the absorption of the acid fluids is therefore very slow, and the rapidity of the decay diminishes in a corresponding ratio."

It is a curious fact, to which our author alludes, that healthy but dead human teeth, when inserted in the place of

others that have been lost, are subject to decay, the process being the same as that just described. The inserted tooth presents the same appearances under decay, and the steps by which it is removed do not differ from what are observed to take place in the original tooth. Dr. Goddard justly regards this fact as an incontrovertible argument against the doctrines of Fox, Bell, and others, who attribute decay to an inflammatory action—an action which, if possible in such a structure as the enamel or the ivory at all, is clearly out of the question in the inserted tooth, which is a foreign body.

But if the ivory possesses no sensibility and is not subject to inflammation, it may be asked, how does it happen that the decaying tooth when cut or pressed causes pain? Our author thus explains it:

"The tubuli are softened and converted into a state resembling cartilage; the calcareous matter in their calibres is dissolved and replaced by a morbid fluid, which, when the tubuli are compressed by the touch of an instrument, is injected forcibly on to the surface of the pulp, and produces the pain spoken of. When the decayed and softened part is entirely cut away, this pain ceases, because the parietes of the healthy tubuli are too rigid to allow this compression to take place; this is commonly attributed to the removal of the *sensitive* and *inflamed* bone."

The only remedy for this disease is *plugging*. The decayed part must be removed, and the cavity filled by a substance which will do no injury itself, and will at the same time protect the ivory from all irritating foreign substances. This is an operation for the professed dentist, and we do not propose to give the details of it, but would simply remark, that the only material for filling teeth employed by good operators, we believe, is gold foil. It is in all respects superior to the various other substances which have been used for the purpose, and ought to supersede every other. The mineral cement lately so much vaunted by quacks is discarded by all expert and scientific dentists.

The progress of decay leads finally to exposure of the investing membrane of the pulp, to *odontitis*, and toothache. The inflammation of the pulp, hemmed in as that is by the unyielding walls, is attended by an intensity of pain which few persons will endure for the three days in which it ordinarily runs its course when left to itself. Filling the cavity with cotton imbued with pure creasote is the best palliative remedy; but in order to afford relief the creasote must be genuine. If it has become brown and lost its fluidity it will no longer relieve toothache. Sometimes it is desirable to retain the tooth when all the soothing remedies have failed; in such cases it has become a pretty general practice to destroy the pulp by *arsenious acid.* But it is a practice which is not to be resorted to without caution. Perhaps there is but slight cause to apprehend fatal or serious consequences from the existence of an idiosyncrasy, but the possibility of such a thing should put us on our guard. A case is reported in a late number of the Journal of Dental Science in which arsenic, thus applied, was charged with having led to the death of a valuable member of our profession. The subject was Dr. Wolcott, of Connecticut, in whom erysipelatous inflammation of the face followed the use of arsenious acid in toothache; but the quantity applied was so small that it is not justly chargeable with the fatal result. Not the eighth of a grain was inserted into the cavity of the tooth, with half the quantity of morphine, more than which is often administered internally in intermittents, lepra, and other affections. The smallest dose on record which led to death in the human subject, was four grains and a half, according to Christison; Dr. Beck, however, on the authority of Hahnemann, alleges that two grains will kill a man, and Renault reports that he killed a dog with one grain; but in his experiment the œsophagus of the animal was closed by a ligature, and vomiting rendered impossible. In no instance have serious effects followed the employment of so small a portion as the eighth or tenth of a grain. The death of Dr. Wolcott was clearly the result of erysipelas of the neck and face, in the production of which there is no evidence that the

arsenic had an agency. The quantity recommended by our author is the sixteenth of a grain, which is carefully enclosed in the cavity by wax, and would not do any serious mischief if it got into the stomach. He condemns the conjoined use of morphine, which, he says, so far from diminishing, actually increases the pain, while it impedes the escharotic action of the arsenic. Neither does he use the common arsenic of the shops—the article must be pure. It destroys the vitality of the pulp, and also forms with it a compound incapable of putrefaction. For a few hours some pain follows the application, when it ceases, ordinarily, and in a day or two the tooth may be plugged. He adds:

"When the disease has progressed to the suppurative stage, and it is desirable from any cause to save the tooth, it is best done by the application of a minute portion of pure arsenious acid to the dental cavity, which is then covered by wax or a mixture of wax and mastic, and renewed once a week for three or four times. By pursuing this plan the offensive discharge will cease, and the tooth may be plugged and worn for an indefinite length of time."

The last great remedy of all—the dernier resort of the dentist, is extraction. This, like the amputation of limbs, is an evil which is to be put off as long as possible, but in some cases it is the only remedy. How it is to be done, then, becomes the question. Dr. Goddard declares for the forceps in every situation where they can be applied. He is no friend to the key. He exhorts dentists never to take it up, "except when nothing else will answer their purpose." It is apt to fracture the tooth, especially if the claw be either too large or too small, is sure to bruise the gum, and in many cases breaks off the alveolus, causing little flakes of bone to exfoliate for weeks after the operation. "Sometimes the fracture of the alveolus is much more extensive, causing it to be broken away from four or five neighboring teeth. This is always a serious injury, for in the event of hemorrhage it deprives us of the power of using the best remedy, namely, plugging the socket." The forceps, as variously modified,

are applicable "to any tooth or fragment of a tooth," and are free from all of the above objections. They should be as small as possible, and skill should supply the place of force. In order to easy extraction, let the gum-lancet be freely used —"it will facilitate *amazingly* the removal of the tooth." The teeth are held in their sockets by ligamentous fibres, which are especially numerous and strong between the molars; these are to be divided by pushing the lancet boldly around in all directions.

The teeth often suffer from a deposit of tartar around their necks. When first deposited it is in the form of a soft yellowish-white substance which may easily be removed by a brush. It soon becomes slightly fetid, and, we are told, if examined by the microscope exhibits a great number of living animalculæ. After a time it hardens, assuming a consistence greater in density than chalk, but never becomes as hard as the enamel. It is composed of the solid portions of the saliva, mucus, and the debris of microscopic animals—or phosphate of lime and magnesia, mucus, and animal matter. The incrustation of tartar causes a separation between the gum and the neck of the tooth. It is to be prevented by the use of the tooth-brush; and when the deposit forms it is to be removed by proper instruments.

Serious hemorrhage sometimes, though we believe rarely, results from the extraction of a tooth. It may arise from a hemorrhagic tendency, of which the records of our profession furnish numerous examples, where profuse and even fatal bleeding follows the slightest wounds; or it may be caused by the failure of the dental artery to withdraw within its bony canal after it has been ruptured. In most instances, this vessel being slightly elongated before it gives way, by which its adhesion to the bone is broken up, retreats into the cavity, and thereupon the bleeding ceases. Where this does not take place and the flow of blood continues too long, or is excessive, it becomes necessary to use measures to restrain it. A stick of nitrate of silver tapered to a point, may be applied directly to the bleeding vessel, and will seldom fail to arrest

the hemorrhage; but if it should it is easy to control it effectually by filling the socket with soft linen, cotton, or as is proposed by some, with plaster-of-paris, introduced in a soft state and left to harden in the cavity.

In the greater number of the subjects embraced in this comprehensive work our readers would take no interest, and we therefore pass over them without notice. The professional dentist would not be content with an analytical review of them, however full, and those for whom this article is written are not interested in understanding the various processes of mechanical dentistry. We again refer the young dentist to Dr. Goddard's beautiful volume for information concerning the anatomy, physiology and pathology of the human teeth, as well as the methods of treating their diseases and deformities, and of making and setting artificial teeth, for the illustration of which he will find numerous plates, which not only embellish, but materially enhance the value of the work. It was designed by the author especially for students of dental surgery; but it is not improbable that its instruction would be highly advantageous to many who are engaged in the practice of dentistry. Y.

Art. VI.—*First Principles of Medicine.* By Archibald Billing, M.D., A.M., Member of the Senate of the University of London, Fellow of the Royal College of Physicians, &c., &c., &c., &c. *First American from the Fourth London Edition.* Philadelphia: Lea & Blanchard. 1 vol. 8vo. pp. 304. 1842.

The age of industry, toil, and bustle, in which we live, seems to have communicated a spirit of enterprise, or it may be more proper to say a spirit of *ultraism*, to all the occupations of civilized life. The age of iron has passed, and has been succeeded by what may be emphatically called the age of steam. From him who rules the destinies of the mighty

house of Hapsburg, through all the grades of political rulers, down to the most humble—all have an eye upon the operations of steam. The magnificent conceptions of the statesman are carried out by its power; the manufacturer, the agriculturist, and even the *printer*, have availed themselves of its advantages; and to judge of its mighty effects as a book-making power, it is hard to resist the idea that *pens* do not also go by steam.

The vast amount of books, both cheap and dear, good and entirely worthless, which are thrown off from the press and distributed upon this continent, is truly wonderful, and must form a strong characteristic feature of the age. It would be unreasonable to suppose, that, amid the excitement of this mania, the members of the medical profession should remain "lookers on," without contributing their mite. We accordingly find that our brethren, not to be behind the age, have industriously set themselves to work in manufacturing *new books* out of old ones, by re-moulding ideas that have been common to the profession from the days of Hippocrates to the present time; the consequence is that many of them are never read at all, or read to be consigned to that oblivion which they so justly merit.

Fortunately for the profession, however, there are many men of the present age, who have the talent and energy necessary to examine facts and form conclusions for themselves, and whose works are as refreshing to the student and seeker after truth, as the oasis to the wayworn traveller in the desert.

Such is the character of the work now before us, which deserves, for the many important truths it contains, and the manner in which they are told, a much more favorable reception than it has met with at the hands of the profession. It is the result of long, deep, and accurate thought, and has the merit of briefly stating *many* medical truths which are of the utmost importance to the practitioner.

For the purpose of showing the cast of mind and the determined spirit of inquiry of Dr. Billing, we will here introduce

a short extract from the advertisement to the second edition of his book.

"I was originally led to publish this treatise by a recollection of the difficulties I had met with in the study of my profession, and by the hope that I might aid in removing them from the path of others.

"Upon commencing the study of medicine and surgery, after having become acquainted with the more minute physical sciences in the University, I was appalled to find it a complete chaos. Our family physician, really a man of great talent, and one of our professors, disheartened me by his answers. I inquired, 'What is fever?' Answer, of course, Cullen's definition. 'But what produces it?' 'Sometimes one thing, sometimes another: excessive cold or heat, or the effluvia from a person who has fever.' 'But what is the cause of the phenomena in the body?' 'Spasmodic contraction of the extreme vessels.' I could understand that cold might contract the extreme vessels, but I had been taught by the professor of Chemistry that caloric expanded everything. And, again, I did not see how effluvia produced spasm, nor how the spasm, even if it were produced, could make the skin extremely hot as well as cold. I was advised to read Cullen, and did so; but without finding the information I sought. Again I asked, 'When you give a dose of rhubarb or castor oil to stop a diarrhœa of many days' standing, how does it effect this object?' 'By clearing away the peccant matter.' 'But would not the diarrhœa scour away the peccant matter itself?' 'Not so well.' This did not satisfy me.

Neither could the surgeon clear up these points: 'for his part he did not pretend to understand physic.' I 'walked' the hospital at his elbow as dresser, and inquired, 'Why do you apply cold lotions to that inflammation?' 'To moderate the action of the vessels.' 'Inflammation, then, is over action of the vessels?' 'Yes.' 'Why do you apply that *astringent* (goulard or nitrate of silver) to that other inflammation?' 'To diminish the action of the vessels.' Now the *action* of the vessels being *contraction*, my logic did not enable me to comprehend him; so, after asking why he put a cold lotion or poultice on one inflamed part, and a warm poultice or fomentation on another, and being told I should find out by experience, I resolved on attempting to find out myself."

In giving a general view of the apparatus which supports the life of man, the author contends that the contraction of

the heart only is muscular, and that of the arteries elastic and that the latter keep up a *constant* contractile force upon their contents, whether the amount of blood which they contain be great or small, keeping them constantly full, and at the same time exerting a force which is sufficient, during the temporary contractions of the heart, to cause the equability of the stream in the veins.

"It has been supposed," he adds, "that the circular fibres of the ARTERIES were muscular; that they contracted and relaxed at each pulse; and that the throb felt was caused by a dilatation of the artery. Those fibres are NOT MUSCULAR, but more approaching to a ligamentous tissue, firm, and, though elastic, not yielding to the force of the heart at each beat, but, on the contrary, preserving the CALIBRE of the artery UNIFORM, as may be seen by laying bare an artery in a living animal, or when the artery is exposed in an operation: it is LONGITUDINALLY that the arteries are STRETCHED at each injection from the heart, by which their capacity is increased; the consequence of which, from their being bound down in various places, is, that there is a SERPENTINE motion in the artery where it is at all loose. The fibres of the middle coat of the artery, being arranged circularly, allow of the separation laterally, and thus *accommodate* themselves to the *elongation* of the tube, whilst they *resist* its *dilatation*." (pp. 33, 34.)

This statement, we are told, has been confirmed by microscopical observations made by Schwann and Ehrenberg, in 1836; whereby this long-continued controversy has been set at rest, as regards the muscularity of the arteries.

It is also contended, and we think with much show of reason, that the heart exerts really a very feeble power in forcing the blood through the arteries and veins; for, upon the common hydrostatic principle of fluids finding their own level by the mere force of gravitation, we may account for the *greater* part of the force which is requisite to keep in motion so small an amount of fluid; the greater amount of blood, in all natural positions of the body, being below the level of the heart.

As we have promised ourselves to give nothing more than a passing notice of some of the general features of the book, we are compelled to omit many matters of interest; among others

the action of the nerves upon the muscles and capillary arteries—giving barely this opinion of the Doctor's, that "all organic action is contraction, produced by nervous influence."

Upon the subject of animal heat, we have the following rather curious observations. These are the more remarkable, as they are almost identical with those since put forth by Liebig. Dr. Billing therefore seems to have anticipated the German professor:

"The ANIMAL HEAT has been accounted for in different ways by several ingenious physiologists: from the aggregate of their opinions and experiments I deduce, that *heat is extricated all over the frame;* in the *capillaries*, by the *action* of the *nerves* during the *change* of the *blood* from *scarlet* arterial to *purple* venous; and *also* whilst it is changing *in the lungs* from *purple* to *scarlet*."

"There is a perpetual *deposition*, by the capillary system, of *new matter*, and decomposition of the *old*, all over the frame, influenced by the nerves: in other words, the galvanoid or electroid influence of the nerves, which occasions these depositions and decompositions, keeps up a slow combustion. In this decomposition there is a continual disengagement of carbon, which mixes with the blood returning to the heart at the time it changes from scarlet to purple; this *decomposition* being effected by the *agency* of the *nerves*, produces constant extrication of caloric: again, in the lungs that carbon is thrown off and united with oxygen, during which *caloric* is again *set free;* so that we have in the LUNGS a CHARCOAL FIRE constantly burning, and in the OTHER PARTS a WOOD FIRE, the one producing *carbonic acid gas*, the other *carbon;* the *food supplying*, through the circulation, the vegetable or animal *fuel* from which the *charcoal* is *prepared* that is *burned* in the *lungs*." (pp. 42, 43.)

The following short extracts from the section upon inflammation will serve to give some idea of our author's views upon that subject, and the influence which the nerves exercise upon the contractile power of the capillaries:

"The action of the arteries is also acknowledged to be contraction, whether considered muscular or not; but there is some difference of opinion as to the degree of action of the arteries in inflamed parts. It is very common to say, that in INFLAMMATION there is an increase of arterial action; but a con-

sideration of the phenomena, and of the nature of arterial action, will show that in inflamed parts the capillary arteries are weaker in their action; that there is diminished arterial action, for the action of arteries is contraction: now the arteries in inflamed parts are evidently larger than before—less contracted, that is, acting less."

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"Let us see how far we can go in proving that the *capillaries depend* upon *nervous influence* for their contractile action. Blushing is, perhaps, the most unequivocal proof that an alteration in the nerves is the cause of sudden dilatation of the capillaries. It is not the action of the heart alone which causes the partial blush; for, first, the heart often acts stronger without causing blushing, and, next, the blush is partial; whereas, when the mere action of the heart causes increased redness of the skin, as from exercise, it is not partial, as it is in blushing from mental emotion. And this, which is sudden weakness of the capillaries, has been commonly attributed to the 'increased arterial action,' and 'determination to the face.' I attribute this giving way of the capillaries to derivation of the nervous influence, which, being directed to or expended in the brain more freely by mental emotion, robs, for the moment, the capillaries of the face of their energy."

"What is called the blush of inflammation may be brought on in a part by reiterated strong electric sparks. It may be said that the effect of the electricity is on the tissue of the capillaries; but the first effect produced is pain, showing that the operation of the electricity commences on the nerves, sensitive as well as organic." (pp. 44, 49.)

The whole of his remarks upon the subject of inflammation, with the treatment of wounds, ulcers, and suppurating surfaces, are highly interesting, and, if carefully studied and stored up in the memory, will be found to be of immense advantage, not only to the student, but to the practitioner of many years' standing; for, in the language of the author,

"Many persons of great experience practise well empirically without much brains or reasoning; but he who begins upon principle, and then profits by experience, must become a much more skilful practitioner. How many persons apply a poultice to an ulcer with a tolerable certainty of improving it, without ever knowing or caring for the rationale of the effect."

As we have already nearly reached the limits assigned us, we must content ourselves with giving a few more extracts, selected almost at random—a mode of selection, from pages so interesting, as good, perhaps, as any other. The following remarks upon rheumatism will be read with interest:

"There are forms of rheumatism which it is extremely difficult, if at all possible, to distinguish from neuralgia; so direct is the connexion between the nerves and rheumatic disease. Indeed, I believe that all rheumatism commences with lesion of the nerves of the part: to which it may be objected that in *acute* rheumatism the other tissues are red and swollen. Even so; the process of inflammation begins by functional, if with no physical derangement, in the nerves, and spreads, owing to the diffusion of the nervous tissue, through the cellular tissue of the skin, muscles, sheaths of tendons, pericardium, &c. This affords an explanation of the phenomena, and of the utility of the remedies employed: many cases are curable by tonics, while most are relievable at all stages by narcotics; some imperatively requiring bleeding, a few injured by it: the perception of which last-mentioned fact was the reason that bleeding was quite out of fashion at Edinburgh when I visited it; so much so, that patients with their wrists and ankles swollen, and the chest oppressed, were not bled, because, as was truly asserted, bleeding *sometimes* caused the convalescence to be tedious. No doubt this happened when discrimination was not used. All my life I have seen men prescribing for disease by name: one man bleeds always in acute rhumatism, another never, or scarcely ever; one gives emetics and bark in all cases, another mercury, another colchicum, &c.; one man finds digitalis of great use in rheumatism, another stares at his assertion.

"From what has been already said upon the subject of inflammation, it may be deduced why and where these remedies suit; why, for example, digitalis and bleeding will procure sleep better than opium when the brain is plethoric and feverish; and, on the other hand, that wine and other products of fermentation will procure sleep better than even opium when there is a state of inanition.

"I must beg pardon of my senior readers whilst I set down a few directions for the juniors, in further explanation.

"Do not neglect to bleed in acute rheumatism (rheumatic fever) if, with a plethoric appearance, you have the external redness and tenderness, combined with oppression at the

chest, indicating tendency to pericarditis, or if there be symptoms of meningitis.

"Do not bleed in acute rheumatism, unless emetics and other treatment have failed, if there be *only external* pain and swelling, and a patient not strong, lest you have a *slow convalescence*, as any one may expect if a patient be bled unnecessarily.

"But, on the other hand, always have the fear of internal inflammation, 'metastasis,' in your mind's eye, or you may have *no convalescence* at all, but death for want of bleeding. If your patient gets severe pericarditis, you will either have death soon with fever, as I have known happen from neglect of bleeding, or a lingering death from adhesions and enlargement of the heart (such as may be seen on the shelves of every museum), with dropsy.

"Never neglect, in acute rheumatism, to examine the chest, and inquire about it; for the patient will scarcely ever complain of it, even when affected, in consequence of his attention being drawn off to the severe pain in the limbs and muscles of the trunk. Conviction has been forced upon the medical world, that in rheumatic fever the heart uniformly participates in the disease, though 'metastasis' to the heart is not said to have taken place until symptoms of serious lesion of the organ are evinced; but the peculiar pulse of rheumatic fever declares the state of the organ. It is irritated sympathetically as in other acute diseases, hence the pulse is more frequent; but being itself affected by the rheumatism of its fibro-serous tissue, it is weakened in its action; hence it does not empty itself, causing the full soft pulse—full, because there is much blood, and soft, because the action is not energetic.

"In referring rheumatic inflammation to the nerves, I have only gone a step further than some who call certain kinds of it neuralgia. The exciting cause of rheumatism is usually cold and damp together, not either alone; intense cold will seldom produce rheumatism if the atmosphere be dry; but if the skin have been perspiring previously, so that it or the inner garment is damp, rheumatism results; warm damp does not produce it. A cold fog or rain will produce the effect, though the person has not been previously perspiring. Moisture appears to exercise a peculiar effect on the electric state of the nerves; but if the parts be warm, that is counteracted; the cold and damp together are noxiously sedative. Every person can recollect illustrations. The softer and more vascular tissues are not so easily contracted to a noxious degree

as the dense fibrous tissue; hence the latter is the first to suffer from the sedative damp and cold." (pp. 251—254).

Erysipelas, he thinks, is seated in the same tissue.

"Erysipelas also commences in the nerves. Cold air does not produce the inflammation, unless the part have been previously warm and damp, and then a continued stream of cold air will produce erysipelas. Slight erysipelas of the face or ear is frequently produced in this way, and called by the peasants a blight or blast, &c." (p. 254.)

After some remarks upon the treatment of this disease, the author sums up the whole matter in these words:

"Here, in two words, is the epitome of the treatment of erysipelas—emetics and tonics. Tartar emetic, to check the inflammation, which being one of a debilitated diathesis, though benefitted by leeching or bleeding at the moment, much evacuation will even increase the tendency of the disease to return, as is known by experience. Tonics, including calomel, take away that tendency or disposition of the disease to return; and the latter by its tonic effect upon the liver, promotes the digestion and consequently the strength of the patient, who must be well nourished after the paroxysm. Practitioners well know that it is the nature of erysipelas to return periodically like gout, or even more frequently, and thus undermine the constitution. I can assure them from experience, that the plan I have laid down, persevered in, and modified according to circumstances, will eradicate it." (pp. 258, 259.)

We cannot close our notice without requesting all, who have an opportunity, to read this work carefully, and we doubt not they will consider themselves well paid for their trouble. The book, we admit, has faults both in the style and matter, but its good qualities so far out-number them, that we feel ourselves fully justified in recommending it to the profession. Works of this character are calculated to inspire the members of the profession with more confidence in the principles of the healing art, and to check that spirit of *quackery* which at this time seems to pervade the whole civilized world—if we may be allowed to judge from the vast amount of patent medicines and secret nostrums which are

manufactured and consumed. That quackery must exist so long as disease exists, there is much reason to believe; but, at the same time, much may be done to check it by a proper spirit of determination on the part of physicians to resist its progress. The use of secret remedies does not meet that opposition from the profession which a just regard for its own honor and the good of mankind require. We should make it a rule never to countenance their exhibition in any manner or form—and a general determination of this kind would be productive of much good, and lessen this crying evil. How often do we witness the names of persons who write themselves "M.D.," signed to certificates lauding the efficacy of some patent mixture of whose ingredients they are ignorant. And it is even said, we know not with what truth, that a professor in an American medical school has recently been selling a secret remedy. It is hoped, for the honor of the profession, that this statement is not true.* Physicians are often deterred, by false notions of delicacy and friendship, from opposing the use of these remedies—one dislikes to injure the feelings of a friend, who assures him that *this* or *that* is an excellent article and has done wonders in the way of cure—but the most frequent cause, perhaps, of this apathy, is their regard for the apothecaries with whom they are acquainted, and who have large amounts of these articles for sale. Such we know to be the case in the country, and have reason to believe it to be the case in the cities also. This spirit, though originating in the best feelings of our nature, should be thrown aside when brought in competition with the general welfare; and the profession should come up as one man, and at all times and on every occasion condemn quackery in every form.

R. H.

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*It is too true. He holds an important chair in a Kentucky School of Medicine.—C.

ART. VII.—*De Voce, Lingua, Respiratione, Deglutitione Observationes quædam.* Dissertatio Inauguralis Physiologica, quam ex auctoritate et consensu gratiosi Medicorum Ordinis in alma litterarum Universitate Fredericia Gulielmia Rhenana, ad Doctoris Medicinæ et Chirurgiæ gradum rite assequendum, scripsit et die v. Aprilis anni MDCCCXXXXI publice defendit CAROLUS ERNESTUS NOEGGERATH, Rhenano-Borussus. Cum tabula lithographica. Bonnæ, typis Caroli Georgii, MDCCCXLI.

Observations on Voice, Speech, Respiration, and Deglutition: being an Inaugural Dissertation presented to the Medical Faculty of the Frederic-William University at Bonn, on the 5th of April, 1841, for the Degree of Doctor of Medicine and Surgery. By CHARLES ERNEST NOEGGERATH. With a lithograph. Bonn: pp. 14, 4to. Charles George: 1841.

The observations and experiments detailed in this paper, were made upon an individual with a fistulous opening in the anterior part of the neck. The author remarks that although wounds in this region are not uncommon (as in attempts at suicide) yet very little of benefit to physiology has resulted from them, owing either to the sudden death of the person, or to the immediate closure of the wound by the surgeon, and its subsequent complete cicatrization. It is true, some examples of fistula are on record: thus Mayo relates two, Dupuytren a third, and our author quotes one from Cornelius Trioen and gives another in the course of his observations from Froirep's *Notizen* for 1831. But in all these cases, except the last, the fistula was below the epiglottis.

In our notice of Dr. Noeggerath's Thesis, we shall follow the order he has laid down. As the case of injury is altogether a singular one we shall present his account of it with but little alteration.

The individual, Christian Mueller, is a native of Heimbach, in Prussia, and was born in 1799. At the age of 16 he turned soldier. He seems to have been a pretty quarrelsome

fellow, and as brave as quarrelsome, for he was engaged in several duels, which were generally decided by the small sword. He was frequently wounded in these engagements, and in one of them received a thrust in the chest which injured the lung, and confined him 66 days. At length, after various fortunes, he found himself in his 30th year, at the head of a troop of horse in Africa. In the expedition against Constantine, his horse was struck by a bullet and fell with him. Whilst lying on the ground, Mueller received a cut from the yatagan of an Arab, which pierced his silk cravat, and the collar of his shirt, and divided the pharynx above the epiglottis and thyroid cartilage, leaving, however, the posterior wall untouched. Blood flowed profusely, which he checked in some measure by filling the wound with the divided shirt; his strength failed rapidly and he had vomitings of blood, &c. At the moment he was wounded he felt no pain, nor until some minutes had elapsed, when he experienced severe burning pain and intolerable thirst. After the wound was dressed, he was carried to Algiers in a state of insensibility; traumatic delirium then came on, and continued for seventeen days, during which time he took immense quantities of opium, enough to kill a horse, as the surgeons remarked, all without effect. The greater part, it was supposed, passed through the wound. After this he was near starving to death, as food of all kinds passed through the fistulous opening of the throat. At length, however, after suffering all the tortures of Tantalus, and after the surgeons had tried in vain to close the fistula by plates of silver and lead, the patient himself adapted to the opening a piece of leather covered with linen, which by its elasticity supplied, in some measure, the divided parts. He left the hospital on the 27th day, at first quite weak, but was by and by able to resume his military duties. He remained in Africa two years longer, and subsequently went to Paris where Jobert cured him of hydrocele.

Mueller is now (at the time of the experiments) 41 years old, five feet seven inches high, and well formed. He stoops some in walking, and shows some lassitude, but can make a

long journey without much fatigue. His chest is broad, and sounds well on ausculting and percussing it. Comparing his present state with that previous to the wound, he says he does not feel so vigorous, that his voice is not so strong, and that he does not, as formerly, require occasional bleeding on account of constriction and oppression of the chest.

The aperture presents the following appearances: When he breaths quietly, with the neck extended naturally, the aperture is one inch ten lines and a half long, and one inch and one line broad. In the superior part of the opening and anteriorly, the root of the tongue is seen, covered apparently with granulations; between this and the posterior part of the fauces, a little above, are placed the posterior half-arches of the palate, the uvula depending from their apex. Internally is seen the epiglottis nine lines long, erect, but turned slightly to the left; the vessels of the surface are injected, so that it is a little redder than natural, but less so than the posterior wall of the pharynx. It is generally contracted, owing to the flow of mucus over the surface; the perichondrium and mucous coat a little thicker than natural. In the lower margin of the opening a hard tubercle can be felt, formed by the base of the os hyoides, which is closely united to the thyroid cartilage. The greater cornua of the os hyoides are seen at the sides. The space between the thyroid and cricoid is natural, but the whole larynx is so much depressed that the superior part of the cricoid is only seven lines above the sternum. The parts injured, besides the common integuments, are the platysma myoid muscle and the subcutaneous nerves, the mylo-hyoid, genio-hyoid, and part of the hyoglossus. The ranine artery was doubtless divided, from the profuse hemorrhage at the time of the injury. The sensibility of the injured parts appears very much diminished, as they can be touched with the finger, and the individual himself cleanses them with lint, without the production of pain. Strong pressure finally excites vomiting. The difference, however slight, in the temperature of ingested liquids, is perceived. The skin of the infra-mental region exhibited so little sensibility

that Prof. Muller thought a portion of it might be removed without the patient's feeling it.

We do not know that the experiments instituted by Dr. Noeggerath present any new views on the subjects to which they refer; but they confirm certain theories and notions, and effectually subvert others that are strenuously upheld by certain physiologists. We shall present a pretty full account of them.

I. *Observations and Experiments on the Voice.* When the fistula was open Mueller's voice, subraucous, could be distinctly heard, showing that the voice exists deep in the pharynx and in the rima glottidis. The glottis itself, and the ligaments, owing to their anatomical seat, could scarcely be seen. Nevertheless professor Mayer declared positively that he looked into the glottis itself, during the production of voice, and observed the erection of the arytenoid cartilages, and the tension and tremulation of the vocal ligaments, though the tension could not be distinguished clearly. This accords with the experiments of sundry physiologists on artificial larynges.

When the fistula was closed, the voice was stronger; showing that the cavity of the pharynx, mouth, nose and the adjacent cavities increase the voice not a little. This is easily explained upon physical laws, supposing the effect of the superior parts to be similar to that of a tube; for Biot has shown that hollow but dense conductors increase the force of sounds by hindering the dissipation of the rays. The action of the stethscope illustrates the same principle. This was well understood by Haller and Santorinus.

When the fistula was open the voice was less sonorous. This agrees with Prof. Müller's conjecture, that the circumstance of the vocal tube's having a double orifice, the oral and nasal, does not affect the height of the notes any more than a simple tube; it changes their character by resonance, the voice being of the same altitude, but rendered more sonorous.

These last observations are confirmed by the experiments of Bennati, Savart, and Cagniard la Tour. on one Philibert Her-

colot, who wounded himself in the neck with a knife; the incision, at first four inches in extent, was reduced in three months to a fistula of two or three lines between the thyroid cartilage and the hyoid bone.

When very loud sounds were uttered, the epiglottis was inclined forwards, turning a little from the lateral into a more horizontal position; at the same time it seemed more tense, though a tremor was perceptible by the finger. This confirms an observation of Mayer. "The ancients," he says, "aptly compared the epiglottis to an ivy leaf. By rolling back on itself, it receives the voice coming from the rima glottidis into a very narrow channel, collects the various rays of sound, dispersing them toward the middle of the canal. This infraction is the greater as the epiglottis is more extended. On the other hand, it continues erect in the hoarser sounds, and does not prevent their dissipation."

Touching the epiglottis while the man was speaking, rendered the voice weaker, deeper and hoarser, owing doubtless to the abnormal plane and impeded vibrations of the epiglottis. This seems to confirm Müller's views of the uses of this structure, and those of Magendie drawn from Grenié's experiments.

When he uttered very loud sounds, and at the same time raised the voice, a vehement commotion of the air was distinctly perceived by the finger inserted in the fistula. This again accords with the observations of Liscovius, Lehfeldt, and Müller, from which it appears that an increase of the force of the current of air, other things being equal, raises the pitch both of the natural and falsetto notes.

He sang well the whole scale of sounds whether the fistula was open or closed; from which it follows that they are formed above the pharnyx. According to Rudolphi singing is performed by the larynx alone, as seen in birds, and hence such as use the lips and mouth make hissing sounds. In singing the notes were not pleasant and agreeable, and the man was easily fatigued. He says that before being wounded, he

could not utter higher notes than he now does. In the case of Hercolot, previously mentioned, it was otherwise.

II. *Observations and Experiments on Speech.* When the fistula was covered. Mueller could utter very distinctly all the letters and any name whatever, in a clear voice. Nor was there much alteration of voice, whether the aperture was closed by wood, glass, leather, or a metallic substance. When the fistula was open he could utter distinctly but one vowel letter, *a* with a slight admixture of *e*. He sounded *i* least of all. Hence it follows that in forming the vowels, without some greater difference of sound in the larynx, the greatest and most important differences are produced in the pharynx and cavity of the mouth. Müller, indeed, asserts that in pronouncing the vowels either aloud or in a whisper, the sound is formed by the larynx but is changed in the mouth to *a*, *e*, *i*, *o*, *u*. Is not this sound, though, called in question by Müller, from its quality, that of *a* or its analogue? and does it not seem that the infantile names of parents—mama, papa, *vater*, *pater*, father—in which the *a* constantly prevails in all nations, are derived from the period of life, in which the action of the mouth and palate is imperfect?

When the patient tried to pronounce *a*, *o* and *u*, the epiglottis remained plane, but in pronouncing *e* and *i* it was turned a little on itself.

Of the consonants, he could pronounce very well *h*, and when he laughed, *r*. This proves that *r* belongs to the glottis. Most physiologists are silent concerning this letter. According to Haller it is produced mainly by the tongue; Lenhossek expresses the same opinion. Müller speaks of two r's, pure or lingual, and palatal. Mayer, however, correctly says: "R belongs to the glottis, and is produced partly by the vibration of the arytenoid cartilages and partly by that of the glottis: it is the sound singers make in producing the shake (*tremulatio*)."

III. *Observations and Experiments on respiration.* In respiring with the fistula open, fatigue was soon induced; and respiration was three times more frequent than when the opening

was closed, it being then twenty to the minute. This fatigue and increased frequency of respiration, arose, Noeggerath thinks, from two causes: 1. That the air thus introduced was colder than if it had passed through the buccal and nasal cavities, and hence acted as an irritant: 2. That by its quantity, and perhaps also by its quality, it was little suited to the purposes of respiration. As it respects quantity, it is observed that if one breathes through the mouth alone, the nose being closed, he soon becomes fatigued, and either dilates the mouth still more, or breathes more frequently in the same space of time. The air, moreover, before entering the larynx, is changed in other respects, besides that of heat, by contact with the mucous membranes. At all events it is evident that the watery particles are increased by its passing through the cavities of the nose and mouth, and that small particles of dust mechanically admixed are thus removed. In inspiration the larynx ascended, in expiration it descended. When the breath was held a long time, the epiglottis fell down upon the larynx, as if to close it mechanically.

Liscovius contends that the epiglottis, when at rest, holds the mean between the highest and lowest position. This is not confirmed by Mueller's case; in him, when the epiglottis was quiescent it was much more raised; nevertheless, the position of the hyoid bone should be considered, as upon it depends that of the epiglottis.

According to Mayo, the larynx has nothing to do with *snoring*, and most physiologists, like Lenhossek, attribute it to the vibration of the velum. Yet in the wounded man, when the fistula was open, an obscure stertorous noise was produced, showing that the larynx was engaged in it.

IV. The last experiments and observations refer to *deglutition*

The wound being covered with a bandage, liquids could be swallowed easily, solid food a little less so, and dry substances, as bread, better than those saturated with liquids, *e. g.* bread steeped in coffee. This is what occurs in all persons, except where there is idiosyncrasy or disease.

Frequently in swallowing liquids, especially a large quanti-

ty at once, the fistula being open, cough was produced by a portion falling into the glottis. This seemed to be owing to the fact that the glottis, on account of the muscles being cut, was not sufficiently raised, and was obliquely covered by the epiglottis.

In the effort to swallow, the larynx was drawn up, and the pharynx contracted by the palato-pharyngeus, so that the epiglottis was depressed upon the larynx. This happened before the descent of the bolus, which, therefore, does not mechanically depress the epiglottis.

When the fistula was uncovered, the saliva constantly flowed over the posterior parietes of the pharynx; whether more than when closed, it is impossible to say, although such seemed to be the case. When the covering was removed, the flow of saliva increased, the colder air in the larynx irritating the organs by contact or by sympathy. Rudolphie holds the opinion that the saliva is constantly secreted, but Muller says that when the muscles concerned in mastication, and the tongue, are completely at rest, and there is no unusual stimulus acting upon the nerves, the secretion ceases, whilst it is excited under the opposite circumstances. In the present case, a fistula of four years' standing could hardly be regarded as an unwonted nervous irritant, nor could the salivary flux depend upon injury of the salivary organs.

It was only occasionally that the patient could swallow a bolus when the fistula was open. Dr. N. attempted to close it by plates of glass, varying in size and form; but without success. An elastic body was requisite, which, insinuating itself into the wound, and imitating the motions of the divided parts, impeded neither the movements of the fauces nor larynx.

Lastly, some experiments on *taste* were instituted by Dr. Kobelt. When tincture of colocynth was applied to the epiglottis and pharynx, no sensation followed; when it was applied to the surface of the velum and uvula, a bitter taste was by and by perceived. But as the velum is touched by the root of the tongue every moment, the experimenter

did not feel warranted in making a conjecture as to the patient's sense of taste.

We have thus given a rapid and free translation of the most important facts in Dr. Noeggerath's thesis; we leave the reader to examine, where the author has not done it, how far they agree or disagree with received physiological notions. When we say *rapid* translation, we do not mean to give the impression that it was quite as easy as writing one's vernacular. In fact, it is in some places a decidedly crabbed specimen of latinity, notwithstanding its production at one of the most celebrated Prussian and European Universities. It contains numerous errors of the press, and some egregious ones, besides, of a kind that cannot be attributed to printers and careless proof-readers. For example, we mistake very much if *vulnus* forms a genitive plural, *vulnerorum;* yet this is the fourth word in the thesis. Again, the author construes *sonus* both in the second and fourth declensions, more frequently, perhaps, in the latter, yet it rightfully belongs to the second, and to the second only. This mistake we think the less pardonable, as it was at first the source of some perplexity; and either of them is richly deserving of the birch. We shall not mention any others, and we speak of these with the modesty that should characterize one who acquired his smattering of Latin, not in college halls and bowers, but in the silence and solitude of his own chamber—one not too luxuriously furnished, but which looked forth on as fair a prospect as ever met the gaze of mortal man.

Dr. Noeggerath has, we believe, taken up his residence at Mills' Point, in this State. We trust that his new home will prove a pleasant one, that his success will be commensurate with his undoubted learning and skill, and that his most glowing dreams, such as he may have cherished on the banks of the "wide and winding Rhine," will be more than realized on the shores of the Mississippi.

C.

ART. VIII. *A Treatise on Food and Diet, with Observations on the Dietetical Regimen suited for the Disordered States of the Digestive Organs; with an account of the Dietaries of some of the principal Metropolitan and other establishments for Paupers, Lunatics, Criminals, Children, the Sick, &c.* By JONATHAN PERIERA, M. D. F. R. S., and L. S. &c. &c. Edited by CHARLES A. LEE, M. D. New York: J. and H. Langley. 1843.

In a former article we gave some account of the first two chapters of this work, which treat of *the elements of food*, and *alimentary principles*. We propose now completing our notice of it, by a brief survey of the remaining topics.

All the articles which nourish man are derived from the organic kingdom. He requires a mixed diet of animal and vegetable food. This is proved by the structure of his teeth and of the entire human digestive apparatus, as well as by the fact that the most perfect development and vigor of mind and body are displayed by the nations in which such a diet prevails. The long catalogue of these articles is given by Pereira in his third chapter, on *compound aliments*, which embraces, necessarily, a multitude of details, only a few of which we shall be able to copy; and in doing this we shall endeavor to select such as are most recommended by novelty, or their practical bearing. In connexion with the nutritive qualities of bones, he relates the following incidents, which are instructive as well as amusing:

"At the commencement of the French revolution, the attention of every one in France was directed to the improvement of the food for the poor and for the army. All were agreed in employing for this purpose bones. The government, led away by the enthusiastic reports of scientific men, (Proust, d'Arcet, Pelletier, Cadet de Vaux, &c.,) issued a public instruction, declaring that "a bone is a tablet of soup formed by nature: a pound of bone gives as much soup as six pounds of meat: bone soup, in a dietetical point of view, is preferable to meat soup." It need scarcely be stated that these inflated expressions were gross exaggerations. It is ob-

vious, as Magendie has justly observed, that in this hyperbolic language the terms *jelly* (gelatine) and *nutritive matter* were considered synonymous. The favorable report made by the Faculty of Medicine, on the nutritive and easily digestible properties of gelatine, induced the French *administration des hospices*, in 1824, to introduce its employment into the public hospitals of Paris; and for this purpose, in many of these establishments d'Arcet's apparatus for obtaining a solution of gelatine from bones by the aid of steam, was fitted up. In most, if not in all, its employment was, however, soon abandoned."

His remarks on milk, as an article of diet, will be read with interest. It may not be known to every one that tubercular phthisis frequently affects cows, and that the milk of such animals is degenerated from its healthy state. We have witnessed this disease in a number of cows which were imported from Ireland, and in some assured ourselves of its character by *post mortem* examinations. These revealed the most extens deposits of tuberculous matter and general disorganization e lungs:

"The quality of the milk is also affected by the state of health of the female supplying it. I have already mentioned the effect of tubercular disease of the lungs in increasing the quantity of phosphate of lime in the milk. This subject is one of the greatest moment, not only in reference to the frequency of disease in cows, and, therefore, to the possible morbific character of their milk, but also in reference to the milk of the human subject. I think, with these facts before us, it would be highly improper to allow a female, with any trace or suspicion of tuberculous disease, to suckle. Not that a few grains, more or less, of phosphate of lime in the milk, can probably do any injury to the child; but the fact once established, that the milk may be thus altered by disease, leads to the suspicion that some other substances, not yet recognized by their physical or chemical characters, may be in the milk of diseased nurses, and which may have an injurious influence on the child; and the suspicion does not confine itself to those affected with tuberculous diseases: other hereditary or constitutional affections may also be attended with altered conditions of the milk. This suspicion is strengthened by the common observation that the milk of different nurses

does not equally suit the same child; nor that of the same nurse. different children."

The following statistics of the editor, Dr. Lee, belong rather to political economy than to medicine, but we are sure our readers will be obliged to us for the quotation of them:

"Indian corn and potatoes, indigenous to our country, have contributed much to promote the health and longevity of mankind in both hemispheres. As they are among the cheapest, so also are they among the most wholesome of all articles of food employed by man. Good corn weighs about 60 lbs. to the bushel, and costs at present 56 cents per bushel, or nearly one cent per pound. Now a pound of corn, when cooked, makes from two and a half to three and a half pounds of food, and this will suffice for the daily support of a laboring man. If an individual could be supported on this alone, his annual expense for food would be but $3 65, or say $15 to a family of five. The average cost of potatoes may be put at about half a cent a pound, and allowing five pounds per day to an adult individual, the expense will be about $9 a year; or for a family of five, (reckoning them at three and a half adults,) about $30. When we consider that it is not unusual for land to yield 100 bushels of corn to the acre, and 30 tons, or 67,200 pounds of potatoes to the acre, we may form some estimate of the population which this country is capable of supporting from the produce of the soil."

Have any of our readers lived to this time without being acquainted with the surpassing excellences of the *corn pudding?* We have supposed such a thing possible, and here pause in our grave task of reviewing this instructive book, to exhort such as are yet strangers to the merits of this most delicious of puddings, to procure the recipe for making it before the next "roasting ear" season. The corn being well grated, is mixed with butter, eggs and milk, seasoned with salt and pepper, and thoroughly baked. Thus prepared, no dyspeptic need fear it, and no man who is not indifferent to the good things of this world will sit down to dinner without one of these puddings on his table, during the season of young corn.

Our author esteems potatoes highly for their antiscorbutic properties. In prisons, where men are confined to few arti-

cles of food, scurvy frequently breaks out. It has been found that the disease is prevented by adding a few pounds of these tubers to the weekly rations of the convicts. He makes the following statement in regard to the effect of freezing upon the potato, which, we dare say, will be new to most of our readers:

"The influence of a freezing temperature on the potato is remarkable. The effect is mechanical; the watery juice contained in the cells and intercellular spaces, expands in the act of freezing, and by this means ruptures and isolates the cells, and destroys the organization of the tuber. It does not appear, however, that any chemical change is produced in the first instance either on the starch or the other constituents, for Girardin obtained the same proportions of water, fecula, woody fibre, albumen, sugar, and saline matters, from frosted, as from unfrosted potatoes. But it is obvious that when the organization and life of the potato is destroyed, decomposition must soon succeed; though even then the fecula or starch seems but little altered."

The reader will find every thing in this part of Dr. Pereira's work that he can wish to know, concerning "solid foods, drinks, and condiments." We only select a remark as we pass along, which may serve as a specimen. Of bread he says:

"Notwithstanding that bread is denominated the *staff of life*, alone it does not appear to be capable of supporting prolonged human existence. Boussingault came to this conclusion from observing the small quantity of nitrogen which it contains; and the Reports of the Inspectors of Prisons, on the effects of a diet of bread and water, favor this notion."

Meat alone, on the contrary, does appear to be sufficient. Dr. Lee, in his appendix to this work, cites some facts going to establish it. Thus:

"Sir Francis Head relates some interesting particulars respecting the Gauchos, inhabitants of the Pampas, in South America, which have an important bearing on this question. After stating that they often continue on horseback day after day, galloping over their boundless plains, under a burning sun, and performing labors almost of an incredible description, he remarks: 'As the constant food of the Gauchos is *beef and*

water, his constitution is so strong, that he is able to endure great fatigue, and the distances he will ride, and the number of hours he will remain on horseback, would hardly be credited.' Sir Francis Head also brings his own personal experience in proof of the correctness of the above statement.

"'When I first crossed the Pampas,' he remarks, 'I went with a carriage, and although I had been accustomed to riding all my life, I could not at all ride with the Peons, (drivers of the carriage,) and after galloping five or six hours, was obliged to get into the carriage; but after I had been riding for three or four months, and had lived upon beef and water, I found myself in a certain condition, which I can only describe by saying that I felt no exertion could kill me. For a week I could daily be upon my horse before sunrise, could ride till two or three hours after sunset, and have really tired out ten or twelve horses. This will explain the immense distances which people in South America are said to ride, which I am confident could only be done on beef and water.' "—*Rough Notes, &c., by Sir Francis Head*, p. 29.)

This does not harmonize exactly with the assertion we made at the beginning of this article, on the authority of physiologists, that "the most perfect physical development, and the greatest intellectual vigor are to be found among those races in which a mixed diet is the prevalent habit." Still there can be no question of the truth of this assertion. The peculiar habits of these Tartars of South America render the exclusive diet of animal food congenial to their systems, but if adopted generally by men, it would prove ruinous to health and strength of constitution. It is only persons of the most laborious habits who can with impunity partake largely in hot weather of animal food.

In the second part of his work, Dr. Pereira treats of *Diet*—the digestibility and nutritive qualities of foods, times of eating, dietaries, and dietetical regimen for the sick.

On the question of repose, or activity after eating, he expresses the following opinion:

"These and many other analogous facts are satisfactory to my mind that repose is natural to animals after a hearty meal; and that the practice of taking the *siesta*, or after dinner sleep, is not injurious, if moderately indulged in. It should, how-

ever, be followed by moderate exercise. But there are exceptions to these statements, and I have met with some few persons who have asserted that they find advantage in using exercise immediately after dinner; but these form exceptions to the general rule. After the earlier and lighter meals of the day, breakfast or luncheon, quietude or repose is neither desired nor required."

Of the times of eating, he says:

"These facts show the importance of breakfasting soon after rising and dressing; at least in many cases. I am fully aware that there are numerous exceptions to this. Some persons not only suffer no injury from, but actually appear to be benefited by, active exercise taken before breakfast; its effect being with them to create or augment the appetite. But in others the effects are those which I have already stated. I am satisfied, from repeated observation, that in children disposed to spasmodic and other brain diseases, the practice of making them attend school for two hours before breakfast is injurious; and I fully agree, therefore, with Dr. Combe, that in 'boarding-schools for the young and growing, who require plenty of sustenance, and are often obliged to rise early, an early breakfast is almost an indispensible condition of health.' Epileptics, especially those disposed to morning attacks, should invariably breakfast soon after rising. I think I have seen the fits brought on by neglecting this precaution. For travellers a light breakfast before starting is a great protection 'against colds and subsequent fatigue or exhaustion.' Medical men and others should not, if possible, expose themselves to the influence of infectious or contagious disorders, as fevers, &c., before breakfast, as the danger of infection then is greatly enhanced. For the same reason the practice of making post-mortem examinations and dissections before breakfast is to be condemned."

Concerning *dietaries for children* he has the following sensible and pleasant remarks:

"In children the function of nutrition is more active than in adults. They have not merely to repair the daily waste, that is, to renovate their tissues, but to grow. Their functions of circulation and respiration are, therefore, more active than in after life; and they require food; that is, substances to sup-

port the process of respiration, to be administered at shorter intervals."

"Children, for the most part, evince an almost instinctive fondness for sugar, which is supplied to them in their mother's milk. This perhaps is to be explained by the fact that it is an element of respiration, and, therefore, is more necessary for them than adults, on account of the greater activity of their function of respiration. But this fondness for sugar is by no means universal among children. In very cold countries, substances richer in carbon and hydrogen, and, therefore, yielding more heat by combustion, are preferred. 'In one of those late extravagant voyages to discover a northwest passage,' says Sir Anthony Carlisle, 'the most northern race of mankind were found to be unacquainted with the taste of sweets, and their infants made very wry faces, and sputtered out sugar with disgust; but the little urchins grinned with ecstacy at the sight of a bit of whale's blubber.'

The natural appetite I believe to be an index of the wants of the system; and ought, therefore, to be consulted, to a certain extent, in the dieting of children; and I believe that parents commit a gross error who totally disregard it. I have seen children refused vegetable food, though they ardently desired it, because they would not eat what their nurses supposed to be the proper proportion of animal food; and, on the other hand, I have known children denied animal food, on the mistaken notion that it would be injurious to them, though the digestive functions were active, and the appetite for meat most keen."

"Children may be over fed or under fed. Instances of the former, however, are comparatively rare. Of the ill consequences of defective nutriment we have, unfortunately, too many instances continually presented to our notice. Irritable bowels or diarrhœa, tumid abdomen, mesenteric disease, wasting, and fever, are the ordinary and obvious effects. They frequently follow the continued use of pea-soup and potato-stews—dishes which are in common use at poor-houses and other establishments for pauper children. Scrofulous and strumous diseases, marasmus, rickets, distortions, and pot bellies, so commonly met with among children of the poor, are referrible, in part, at least, to food, defective either in quantity or quality, or perhaps in both. I think it will be found that more than two-thirds of pauper children are strumous. They derive this condition in part, perhaps, from hereditary tendency; but partly also, as I believe, from defective nutriment. To the same cause, also, is ascribable their

inferior developement. If the children in poor-houses be examined, they will be found, for the most part, smaller and shorter for their age, more frequently distorted, and more readily fatigued, than the children of the middling and higher classes."

The section on *dietaries for the sick* abounds, as does indeed every portion of the work, in details of uncommon interest for the practitioner of medicine. The fever diet, the low diet, the animal diet, the vegetable diet, and all the other modifications demanded in man's aliment by his ever-varying disorders, are here given with all desirable minuteness. On this subject we will give but a single passage, which our author quotes with approbation from Dr. Billing:

"Natural instincts," justly observes Dr. Billing, "are too often thwarted: it is much too common to put patients empirically on low diet; and patients of the higher classes—the better educated—very often put themselves on low diet unnecessarily. So far as we may take natural instinct for a guide," he further observes, "we may assert, that when a patient *can* eat, he may be allowed to do so; for if he has even a slight degree of fever, he *cannot* eat."

The Appendix, by Dr. Lee, supplies the omissions of the author, and adds to the value of the treatise. We take leave of it by again recommending it to those who wish an entertaining volume on a subject which comes home, if not to "the business and bosoms," at least to the "stomachs and interests" of all classes of men. Y.

BIBLIOGRAPHICAL NOTICES.

ART. IX.—*The Anatomy and Surgical Treatment of Abdominal Hernia:* with numerous Plates. By SIR ASTLEY COOPER, Bart., F.R.S., Surgeon to the King, and Consulting Surgeon to Guy's Hospital. From the Second London Edition. By C. ASTON KEY, Senior Surgeon of Guy's Hospital and Lecturer on Surgery. Philadelphia: Lea & Blanchard; pp. 427, large 8vo; 1844.

It would be somewhat late to praise a work which for nearly forty years has ranked among the authorities of the profession, and upon which in part rests the fame of its world-renowned author as a consummate surgeon and anatomist. At the time of its first appearance, in 1804,* it must indeed have been a most remarkable production. The anatomy of hernia was ill understood, or rather was not understood at all, the only author who had made any researches on it being Camper, whose *Icones Herniarum* were published in 1801, after his death. Anatomists had described, what is now known as the external abdominal ring, as being closed behind directly by the peritoneum. Even so late as 1785, Richter, whose work, according to Lawrence, is valuable for its clear narration of symptoms, &c., thus describes it. It was reserved for Cooper to place this important matter in its true light; and the anatomy of the parts, as described by him,

* The work originally consisted of two parts, published at different times. The first part, under the title of "*Anatomy and Surgical Treatment of Inguinal and Crural Hernia,*" appeared in 1804; the second, entitled "*Anatomy and Surgical Treatment of Crural and Umbilical Hernia,*" was published in 1807. In 1827, the second edition, under the present title, was given to the public by Mr. Key. All these were in folio.

the result of careful and elaborate dissection, is now very generally acknowledged to be correct.

We owe also to Cooper the rule for operating, applicable to every species of hernia, viz: to cut directly upwards in dividing the stricture; a precept which, he tells us, was taught publicly by him as far back as 1792. But we need not enumerate all the improvements introduced by him. We hope every one will provide himself with a copy of the book; and not rest satisfied with the meagre extracts from it to be found in surgical treatises. An attentive perusal of it will give clearer ideas of the subject, than all these together.

The work is essentially practical. The author scarcely quotes the opinion of a single writer, not from a desire to slight or undervalue the labors of any, but because he wished to confine himself to the unequalled stores furnished by the Hospitals of Guy and St. Thomas, and to the observations collected from private practice in the metropolis. Hence he gives no case for the truth of which he cannot vouch. Another reason for this may be found perhaps in the fact that Cooper, like our Physick, was not a man of much learning, or of much reading, but possessed a rare practical sagacity, and a wonderful self-reliance.

The plates of the folio edition are all preserved in this, although of course reduced in size. Great care has been bestowed by the publishers to insure accuracy in this reduction, as well as correctness of the references. The execution of the plates is worthy of all praise.

We may state here, that the same house, Messrs. Lea & Blanchard, have it in contemplation, to republish the other works of Cooper in the same beautiful style. We hope the profession will evince their approbation of this scheme, and their appreciation of the merits of the works, by in the only practicable way.

Cooper, as our readers are aware, died about two years ago at an advanced age. One would suppose that such a man could depart in peace, looking back as he might and seeing his name written in characters of light on some of the brightest pages in the records of surgery. C.

ART. X.—*Human Physiology:* with upwards of three hundred Illustrations. By ROBLEY DUNGLISON, M.D., Professor of the Institutes of Medicine, etc., in Jefferson Medical College, Philadelphia; attending Physician and Lecturer on Clinical Medicine at the Philadelphia Hospital, &c. &c. "Vastissimi studii primas quasi lineas circumscripsi."—Haller. Fifth Edition, greatly modified and improved. 2 vol. 8vo. pp. 648, 656. Philadelphia: Lea & Blanchard, 1844.

Many will be surprised to see a Fifth Edition of this admirable treatise, so quickly succeeding the fourth. But he who makes books, as well as he who reads them, must be no laggard or sluggard, if he expects to keep pace with science, in these times of stirring and active inquiry. With the discoveries of Bell, physiology and anatomy received an impulse which is still felt; and what with the vivisections of Magendie, the experiments of Brodie, Marshal Hall, Grainger, Reid, &c., the investigations of Ehrenberg, Schwann, Müller, Gerber, Mandl, and others with the microscope, we bid fair to discover some of nature's most hidden and recondite mysteries. Such has been the rapid progress of physiology within a short period, that to make his work a fair reflection of the present state of the science, no less than on account of its extensive popularity, Dr. Dunglison has found it necessary to put forth a new edition, with material modifications and additions.

To those who may be unacquainted with the work, we may say that Dr. D. does not belong to the mechanical, chemical, or vital school exclusively; but that, with a discriminating hand, he culls from each and all, making his treatise something very different from what is indicated by its modest motto—not merely the "first lines," but a very excellent and complete digest of the vast subject.

Of the three hundred illustrations, nearly one hundred have been added to this edition. Besides this, most of the old cuts have been retouched, or replaced by superior ones.

C.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Medicines Administered by the Nose.—Dr. Wolford Nelson reports the following cases in the Boston Medical and Surgical Journal of the 27th March, in which medicines were administered by the nose after the loss of the power of deglutition:

"A stout, plethoric girl was taken with convulsions, shortly after a full meal at supper. The family physician was called in, but the convulsions were so violent, and the jaws so firmly locked, that he could not introduce any medicine into the mouth. Attempts at bleeding were made; frictions, sinapisms, sprinkling of cold water, &c., were used, to no purpose. At 11, P. M., I was called in. Never had I seen a more violent case of hysterical convulsions—the friends apprehended speedy death. Twenty grains of pulv. ipecac. with 1 gr. potassio-tart. ant. were mixed in a spoonful of water. This was poured into the nostrils, and passed down, as was manifest by the action of the throat. Immediately after, ℥ss. spt. ammon. arom., undiluted, was sent after the other; this produced a marked uneasiness; sneezing followed, but soon ceased. The fits returned, and the aromatic spirit was repeated, at least ten or a dozen times. The face gradually lost its livid hue, the patient became more tranquil, and in twenty minutes the 'jaw fell,' and copious vomiting of much acid and undigested food followed. The next morning my patient was up and about, to the astonishment of all, and well, save a tenderness in the nose and some heat in the fauces.

"Not long after the occurrence of the preceding case, I was requested to see a fine, and most completely 'spoiled child,' four years old. Speedy vomiting seemed to be indicated; 10 grs. pulv. ip. and gr. i. of tart. ant. were repeatedly forced into the mouth, and as often spurted out in the faces of the assistants—holding the head back, and ample pinching of the nose, notwithstanding. Seeing this, a similar dose was prepared in a spoonful of water, and poured into the nostril. This readily passed into the stomach, maugre the efforts the urchin made to send it whence it came. The medicine had the desired effect, and, I take it, saved the wayward child. After this, the little vixen was ready enough to take medicines in the right way.

"Last summer I was called in haste to a sailor, who had fallen into the river, and had been under water 'upwards of ten minutes,' as affirmed by the captain and by-standers. He had all the appearance of being dead—the face bloated and livid, the mouth filled with froth and mucus. Another practitioner had preceded me, and was industriously occupied in rubbing the body, which was cold and exposed to the air. He was immediately wrapped up in warm blankets, and, under these, dry mustard was abundantly rubbed over the whole surface, while I was busily employed with the spt. ammon. arom., first pouring ʒss. down the nostril, then dipping a quill, saturated with the *aqua ammonia*, and which was thrust down the nose as far as could be reached. This caused some motion—the face became a little florid, a feeble attempt at sneezing was evident—then an attempt to cough, but in a moment after, all was again still; but by persevering in this course for fifteen minutes, the man sneezed forcibly. From this instant it was easy to produce excitement. Thirty grains of pulv. ipecac., mixed with water, were now poured down the nose. In about ten minutes, vomiting occurred; much mucus, and the remains of a half-digested dinner, came up. In one hour he was partly conscious; he was then bled ʒxvi., followed by suitable aperients, &c., and in a few days, to use his own language, he 'would be quite well, if it was not for the infernal burning and itching of the skin [caused by the mustard] and the thump on the head,' for he struck it on a plank while falling into the water.

"A few months since, I was called to a man stated to be dying, from the effects of an extraordinary portion of whiskey he had just taken. He was cold and clammy; the face and the extremities quite blue; mouth filled with froth; breath-

ing nearly suspended, and pulse countless. He had all the appearance of one in *articulo mortis* with Asiatic cholera. Not having a stomach-pump at hand, and not having time to wait for one, as life was nearly gone, 30 grs. of pulv. ipecac. were at once mixed up and poured down the nose, as nothing could be passed through the mouth; and the slight effort to swallow led me to think it was trickling down the throat. Immediately after, ʒss. spt. ammon. aro. was poured into the other nostril; this caused manifest uneasiness, but nothing more. Another portion was administered, which produced some wincing. A long quill, well saturated with the common aqua ammonia, was repeatedly thrust in through the nose. An effort to sneeze, then a cough, and then a good hearty sneeze, assured me that the toper was not entirely gone. Nausea soon became apparent, vomiting followed, and in two hours, the wretched man had knowledge enough to ask where he was, and the next day was sufficiently well to take the temperance pledge.

"An athletic man, raving mad with *delirium tremens*, to whom it was impossible to give any medicine by the mouth, was in two hours in a state of tranquility, having *swallowed* through the nose one grain ext. belladonna, two grains of pulv. ipecac., and three grains pulv. opii, mixed with water in a spoon."

Judicial Advice to Medical Practitioners.—"In the course of a case which was tried at the Old Bailey yesterday, a medical witness, in giving his evidence, used the word 'tumefaction,' upon which Mr. Justice Coleridge said, 'I suppose by tumefaction you mean swelling.' Witness—'Yes, my lord.' Mr. Justice Coleridge—'Then it would be much better to use plain English, than to speak that sort of mongrel Latin.'" Such is the purport of a paragraph in the *Times* of Wednesday, or rather such is the paragraph itself. Now, we must say, that, if correctly reported, Mr. Justice Coleridge was most absurdly hypercritical; we deny that "tumefaction" is mongrel Latin, or even a pedantic expression, and we think it rather too good that the lawyer should think of correcting the doctor for a fault which the world at large regard as *par excellence* the foible of the gentlemen of the long robe.—*London Medical Gazette.*

Statistics of Midwifery.—The relation between the time of the last menstruation and the birth of the child is an interesting one. It was noted in 259 cases, as follows:

In 1	case	menstruation	occurred	about	5½	months	before delivery.
4	cases	"	"	"	6	"	" "
1	case	"	"	"	6½	"	" "
9	cases	"	"	"	7	"	" "
2	"	"	"	"	7½	"	" "
24	"	"	"	"	8	"	" "
24	"	"	"	"	8½	"	" "
138	"	"	"	"	9	"	" "
26	"	"	"	"	9½	"	" "
18	"	"	"	"	10	"	" "
11	"	"	"	"	11	"	and over "
1	case	"	"	at irregular intervals throughout gestation, the appearance of the catamenia being preceded by violent neuralgic pains.			

The points of interest in this table are—1st, the comparatively small number of cases where the intervening time has been less than 8 months; 18 in 259 cases, or in the proportion of 1 to 15; of these 18 cases, labor came on in nine of them at 7 months. This large proportion, taken in connection with the results, would seem to indicate a disposition of nature to expel the child at the seventh month of the utero-gestation. The question would arise, also, whether the presentation of the child had anything to do with this. The case at 5½ months was a woman who dated her pregnancy nine months before her delivery, but who continued to menstruate regularly until this short period before her accouchement. Child healthy and weighed 6 pounds 11 ounces.

Total duration of labor. It was noted in 526 cases and lasted

3 hours and under,		in 77	cases.	From 24 to 36	hours	in 35	cases.
From 3 to 6	hours	in 73	"	36 to 48	"	in 13	"
6 to 12	"	162	"	48 to 72	"	in 8	"
12 to 18	"	95	"	4	days	in 1	"
18 to 24	"	61	"	8½	"	in 1	"

The proportion of those under six hours to the whole number is as 1 to 3:48 or 28 per cent.

Of *nineteen* still-born children where the superior extremity of the fœtal ellipse presented, in *eight* of them no cause was ascertained, nor did there anything occur during the delivery that might lead to such a result. *Two* had the cord tightly around the neck at birth, and the face livid. In both the cord was loosened as soon as possible, and efforts made to resuscitate without effect. *Two* breathed after birth, but soon died, one in half an hour, and the other in five hours. *Three* were from mothers who had convulsions during labor. *One* was

still-born after a labor of fifty-eight hours in a woman with venereal warts. *One* was the first of twins and "had been dead some time." *One* had its position changed from the 4th vertex to the 2d vertex during the progress of the labor, and *had the cord around its neck.* It lived half an hour and died. (Can the fact of the cord being around the neck endanger the child during such a change of position?) In *one* case ergot was given during the second stage, and repeated with effect eight and a half hours before the delivery.—*Am. Jour. Med. Sci.*, April.

On Tubercles and Phthisis. By James Black, M. D.—Considerable difference of opinion still exists among pathologists as to the generation and development of tubercles, as found in the lungs—whether they are the physiological result of a low inflammation, or are a peculiar deposite from the blood, formed by the aggregation of certain morbid or semi-organized molecules, or whether they are an abnormal growth, of the nature of hydatids. Their primary localization is also unsettled. Gerber considers these deposits may arise from any arrestment in the capillaries of the lungs, by which an exudation of the *plasma* or *liquor sanguinis* takes place through the parietes of the vessels into the parenchymal tissue, and so the tubercles are formed—thus making them a mere exudation of albumen, if not of fibrinous globules. Lugol considers their formation to be an *epigenesis*—organized matter capable of nutrition, similar to parasitical growths in other parts, such as in the case of hydatids, intestinal worms, and *pediculi.* All these parasitical complaints are held to be much more frequent in scrofulous habits than in others; and he denies that tubercles begin to soften first in the centre, but equally throughout, being previously quite homogeneous in their texture. As a proof that tubercles are endowed with vascularity, Lugol has met with two instances of hemorrhage in their interior; and, according to his latest opinions, tubercles are no more to be looked upon as devoid of blood-vessels, than the pleura or the white matter of the brain, when congestion or inflammation does not exist; but where vessels are easily detected by the naked eye in all of them, when these phenomena take place. Dr. Kingston also argues for the vascularity of tubercles, and cites, as an analogous proof, the *supposed* non-vascularity of articular cartilage, which he says, has now been proved to be supplied with blood-vessels. In this, he may be said to over-

look the ready development of vessels in textures normally corpuscular, or only endowed with cellular permeability. In opposition to these views, many pathologists, especially in this country, consider tubercles to be composed of inorganized matter deposited from the blood on the mucous surface of the air-cells, and, not unfrequently, in the parenchyma of the lungs. It also follows, that as no change can originate in the organized matter itself, so the solidified tubercle can only be affected through the agency of the parts around, or in contact with it. These latter opinions are founded, principally, on the anatomical researches of Dr. Carswell; and Dr. Watson adopts them to their full extent, while he agrees with Lugol, that the formation of tubercles is closely linked with the scrofulous diathesis. While the miliary tubercles are considered by Andral as the pulmonary vesicles rendered hard by chronic *inflammation*, others, following Dr. Carswell, continue to attribute them to a secretion from the blood, not of tubercular matter alone, but also of a portion of deposite. Dr. Watts seems to hold the modified view of tubercles being of an intermediate nature between pus and coagulable lymph, first solidifying, then softening. That tubercles are the pure result of inflammation, is now rarely entertained; but the more modern phraseology is, that they are the result of a perversion of the ordinary process of nutrition; and that the existence of the scrofulous diathesis occasions that to be deposited as inorganizable albumen, which, in a sound state, would have taken on the form of organized fibrine. Dr. Campbell, moreover, in his late *Observations*, infers, with some French physiologists, that the pulmonary capillaries are of smaller dimensions in individuals of strumous habits, than in those of a healthy constitution. This is the predisposition which arrests the imperfectly organized globules in the lungs—a deposition therefore takes place in the pulmonary capillaries, followed in process of time by a reaction, explosive of the disease. M. Louis, in his admirable article on Phthisis, in the *Dictionnaire de Médecine*, lately published, takes a review of all the theories existing on this subject, and considers objectionable that of tubercle being the result of inflammation, or of being nothing but concreted pus, having its seat in the venous capillaries, according to Cruveilhier and Lallemand. He considers the semi-transparent granulation or miliary tubercle as the first degree, or the nucleus which is developed into the crude tubercle; and, on the whole, he seems inclined to attribute some vascular organization to these bodies. The article is a most valuable one, and deserves translation into our language.

Notwithstanding the continued hopeless fatality of tubercular phthisis in general, after all the progress that has lately been made into its *genesis* and the intimate analysis of its morbid products, still we may say, we are advancing in the more correct appreciation of those cases, in which a lamentable issue is to take place, through the means of stethoscopic diagnosis. The more perfect knowledge of the predisponent causes and the incipient condition of the disease is, by degrees, leading us to a more scientific application of preventive measures, and, especially, by correcting early aberrations in the nutritive organs. The use also of respirators and of artificial local atmospheres, as recommended by Mr. Jeffreys, if a timely removal to an appropriate climate cannot be accomplished, are also thought more worthy of attention. It would also appear from Liebig's late investigations, that a diminished supply of oxygen from a warm and moist atmosphere, would tend to diminish the amount and severity of pulmonic disease. Mr. Gilbert, in his lately published work, while he considers, like several of his predecessors, the *fons et origo* of the disease to be owing to morganizable matter being conveyed into the blood from a defective or perverted nutritive process, strongly insists on a judicious regimen and diet in youth, especially where there is a phthisical diathesis in the parents. To detect the earliest invasion of the disease, which is the most difficult point in our stethoscopic diagnosis, he recommends M. Fournet's very discriminative attention to the respiratory murmurs, and especially to those of expiration, which are increased both in duration and intensity, while the inspiratory murmur is increased only in intensity, but diminished in duration.

The occasional discovery of cicatrized cavities in the lungs, such as are related by M. Payan, of Hotel Dieu of Aix, and Drs. Stokes and Graves, has moreover stimulated some to continue the use of empirical remedies, even in the advanced stages. Among these, we have the *proto-iodide of iron* and the *ol. asphalti;* while, in the early periods, we have the pure alkalies highly recommended by Dr. Campbell, and repeated emetics of *ipecacuanha* by Dr. Durant, after the old plan of Dr. Morton. We must not here forget the very elegant arsenical cigarrettoes, invented by M. Trousseau, which in these days of *fumo-mania*, might be easily and effectually adopted, instead of glass inhalers or other stationary apparatus, which are seldom perfectly managed by delicate and nervous patients.

Some of our French brethren are not very sanguine that

the light of modern science will add much to the cure of phthisis; and M. Paris, Haute Saone, even says, that since the discovery of auscultation and percussion, the disease is in general more rapidly fatal. He attributes this to an early decided prognosis, whereby the patient is at once put upon a medicated diet, by which the blood becomes sooner impoverished; for he considers the very essence of the disease to be a poverty of nutritious principles in the blood—that its character is chronic, and that its more irregular and rapid progress is owing to the employment of an antiphlogistic treatment, to a dietetic regimen, or to a milk and mucilaginous diet, producing an atony in the digestive organs, and also to the depression of the active moral sentiments. He also cites some cases where a generous diet and dissipation of time, with travelling, produced a cure or lenghtened course of the complaint. I may here remark that some late statistical inquiries have tended to stagger the popular, if not medical opinion, as to the greater prevalence of phthisis in some climates, and among some classes of people, who were thought very obnoxious to the disease. A writer of a very elaborate article in the *London Medical Gazette* has endeavored to show that, from statistical returns, "it is neither inequability of temperature, nor the frequency and magnitude of the variations in temperature to which a country may be subject, that has any effect in the production of phthisis; and Mr. Noble, before the statistical section of the last meeting of the British Association, has deduced some observations, in which some few others concurred, that the deaths from consumption, in the factory district of Manchester, were actually fewer in proportion to the deaths from all causes, than in the agricultural county of Essex, being as four to twenty-one in Essex, and three to nineteen in Manchester; and, finally, he showed that a smaller rate of mortality from this disease, compared with the number of deaths from other causes, existed in the Manchester district, than was to be found in the rural parts of the country."—*Retrospective Address*, in *Trans. of Prov. Med. Association.*—*Ibid.*

THE WESTERN JOURNAL.

NEW SERIES.—VOL. I.—NO. V.

LOUISVILLE, MAY 1, 1844.

PHILADELPHIA HOSPITALS.

Dr. Bell, the judicious and able editor of the Bulletin of Medical Science, represents the teaching of Clinical Medicine in the Philadelphia Hospitals as having been meagre and imperfect during the last winter. The amphitheatre exhibitions made by the Professors in the two schools he considers poor substitutes for bed-side medicine, or clinics proper. It seems that the wards of the Pennsylvania Hospital were almost deserted by the students, and that but one visit a week was made to the Philadelphia Hospital. These signs, he thinks, indicate anything but a healthy state of clinical instruction. He adds:

"If defects in the regular system hitherto pursued have been discovered, let them be amended by consultation between Professors of Medical Schools and Managers of Hospitals and Dispensaries; but in the name of consistency, let not the philosophy and true nobility of medicine be tarnished by empirical devices, expedients of the hour, to the sacrifice of her future character and usefulness. In

common with every Philadelphian, and especially every Philadelphia physician, we find ourselves compromised by the present course and tendency of clinical exhibitions once a week within the walls of a college."

Dr. Bell has here stated a grievance more easily pointed out than remedied. How clinical medicine may be taught satisfactorily to a large class, we take to be one of the unsolved problems which lie in the way of medical teachers. The old method of congregating several hundred young men in the wards of a hospital, where, at most, only a dozen or two could either see the patient or hear the words of the professor, was too ridiculous to be long continued. The amphitheatre has now, we believe, been pretty generally adopted, and is esteemed a great improvement upon the former system. Still it is liable to many serious objections. It is desirable that each student should make a personal examination of the patient, which, in fact, is the only course by which he can become instructed in the signs and diagnosis of disease. He who shall indicate a plan by which this object can be carried into successful operation, will be a benefactor to the medical profession. Clinical medicine is justly regarded as an indispensable branch of medical instruction, and it is the interest of every medical school to foster and develope it. A school in which it is not taught would now be esteemed radically defective in its organization—could hardly be called respectable. We are glad to perceive a growing disposition among students to pass the summer in the neighborhood of hospitals, and avail themselves of clinical instruction during the months when the wards offer the greatest variety of interesting disease, and the best opportunities for deliberate individual inspection. The class in attendance on the summer lectures, in this city, is encouraging, and pupils are coming in every few days. The Louisville Marine Hospital affords excellent facilities for clinical instruction, of which it is hoped that the gentlemen engaged in teaching it will make profitable use.

Y.

TRANSYLVANIA MEDICAL SCHOOL.

This institution has lately been the subject of an animated controversy in one of the Lexington papers. A graduate of the school,

an experienced and highly intelligent physician of Lexington, calls upon the Trustees to remedy certain organic defects in the institution which, he contends, seriously threaten its prosperity, if not its very existence. He says:

"This school, (Transylvania) which is the oldest in the West, had no rival for many years, during which time it acquired a high reputation, but from the operation of causes which are now well known, it has commenced with fearful rapidity a decline in public estimation, and in the estimation even of its friends, which will soon ultimate in its entire dissolution and abandonment, unless, by timely re-organization, the causes producing this effect are counteracted or removed.

"The writer of this communication is a graduate of Transyvania, and not only regrets the indications of her declining reputation, but desires the prosperity, the distinguished and unfading renown of his parent institution; and the object he has in view in writing this article is to call the attention of the trustees of Transylvania, and citizens of Lexington, to the fact of its decline, that they, who are her guardians and who have power to act efficiently for her welfare, may speedily do it, before it be too late, by removing the causes which are hastening her dissolution.

"By comparing the last catalogue of this school with those of Cincinnati and Louisville, it will be perceived that the former is lecturing to nearly as many students, if not quite, as Transylvania, and that the latter has greatly the ascendency. Why is it that the Medical Institute of Louisville numbers 242 students, and this not quite 200?"

He enters, then, into the discussion of the causes which have brought about this result, and adds:

"When the medical department of Transylvania University was organized, a capital error was committed in blending the professorships of anatomy and surgery, and appointing the same individual to both professorships, and requiring him to do what no man is competent to do within the short period of four months, except imperfectly, to teach both anatomy and surgery.

"In the Louisville Institute a gentleman of distinguished talents and acquirements devotes the whole of his time to anatomical lectures, and such is the just appreciation of the value and importance of thorough knowledge upon this subject, he is assisted by a demonstrator of anatomy of equal talents with himself.

"This being the fact in relation to the facilities of obtaining a full knowledge of anatomy in the Louisville Institute, I ask, do not the friends of Transylvania see that unless equal facilities and advanta-

ges are afforded by our school, it must continue to fall, and the other rise, until there will be no competition between them.

"In the Louisville school, a gentleman of learning, talents, and of acknowledged practical abilities as a lecturer and operator, devotes the whole of his time to teaching the important branch of surgery, and in Transylvania the professor of anatomy and surgery divides his time between both subjects, and cannot, for want of time, if nothing else were wanting, teach either branch, if he had the talents of both, more than half so extensively and thoroughly as they are taught in our rival institution.

"We have conversed with individuals who attended both schools, who were competent to judge between them, who affirm that more than double the amount of anatomy and surgery are taught at the Louisville Institute, and as well taught, not to say better, than in Transylvania; and, with a knowledge of these facts, young gentlemen, in pursuit of medical knowledge, have gone there in preference to coming to Lexington, until it has become our successful rival, and unless by a speedy *re-organization*, which will afford at least equal facilities, and an equal amount of anatomical and surgical knowledge in our school, it will soon cease to be even the second institution in the West, instead of being the first. That a professor of anatomy of acknoledged abilities, who shall devote the whole of his time to that branch, is needed in Transylvania is evident from the dissatisfaction which the students generally expressed within the last session, many of whom were known to say they had visited this institution for the first and last time, unless there was a new arrangement by which they could obtain as much anatomical and surgical instruction here as at Louisville."

Dr. Peter deemed these complaints of so grave a nature as to require an answer from him, and he is accordingly out, at much length, in the same paper. He denies that the school has fallen into "a rapid decline," and publishes statistics to show that it has not lost quite sixty students in two years. He insists, in reply to his neighbor, that "Dr. Dudley, without descending into the trifling *minutiæ* of *unimportant* surgical and anatomical *niceties*, gives the result of his unequalled practical experience in the most simple and impressive manner." He considers it possible that "other surgeons may appear more learned in authors and opinions, or on the number of tails of a bandage;" but only let it come to cutting "the gordian knot of conflicting authorities," and, he assures us, "Dr. Dudley has no rival." He concludes his defence by asking his antagonist a question which, it is quite plain, he considers unanswerable, and by which, doubtless, he expected to terminate the controversy.

"If," says he "Dr. Dudley cannot teach anatomy and surgery, *who can?*"

Now, *non nostrum tantas componere lites.* We have no wish to interfere in the strifes of our neighbors, out of which we have little expectation of seeing anything grow of benefit to that school, or to the profession. We should not have felt authorized to refer to this controversy at all, if Dr. Peter, quitting the defence of Dr. Dudley, had not taken occasion to allude, in very offensive terms, to some of the professors in the Medical Institute of Louisville. We hope he was betrayed into the indecorum by hasty feeling, and that in his subsequent cool reflections he has found cause to deplore it. He must be satisfied that the late embittered strife between the rival schools was kept up quite too long, and that no good can result from its revival. He must have been aware that his language in reference to members of the Medical Institute, is well calculated to lead to a renewal of personal quarrels of which the public is tired, and by which neither party is likely to gain anything. Peace, assuredly, is the policy of both institutions, as it is the only line of dignity. Let the members of each labor faithfully in their places to build up schools which shall be ornaments and blessings to our country.

We do not doubt, that we shall have the feelings of all right thinking men with us upon this subject. They will condemn such an aggression by a professor in one school upon the members of a rival institution. It is the desire of the profession to see harmony among our numerous schools of medicine, and we are sure they will disapprove of any act which tends to disturb it. Y.

DR. PATTERSON'S VALEDICTORY ADDRESS.

Professor Patterson, of the Pennsylvania Medical College, delivered a sensible and appropriate address to his graduating class at the close of the last session, of which we have had the pleasure to receive a copy. We will add that we experienced much pleasure in reading it. It is the production of a gifted and cultivated mind, characterised by modesty and a love of truth. The thoughts

are occasionally excellent beyond the average of such discourses. Take the following as examples:

"No class of men appear more backward than the members of our profession to admit the correctness of the position so stoutly contended for by a late author, that he who prints, for any other reason than because he has something in him which deserves to be printed, sins against the peace and comfort of the community. In these latter days of book-making, too many, inspired by the mere lucre of gain and the poor ambition of seeing their names printed on a title-page, have poured out treatise upon treatise, compiled and most unskilfully collated from foreign authors of all grades of authority, and in which you will find an attempt to extract the original matter as hopeless and unprofitable as the process of Gulliver's philosopher for obtaining moon-shine from cucumbers. Under these circumstances you would of course, err in giving equal credence to all authors, without discrimination. This fact also renders inexcusable those who state no settled opinions of their own, but merely give the conflicting views of others, balancing one array of names against another, as though they were counting the black and white balls in a ballot-box, without giving the student or the man of small library a clue to the authority properly attaching to any one of them. But while endeavoring to distinguish authoritative writers from others, you must be equally guarded against falling into the contrary error, an implicit reliance upon the dictum of any one man. The rule here, as elsewhere, is that the truth makes the authority, and not the authority the truth. Let your reverence for the individual be ever so great, you must bear in mind that our science is still progressive, and that no man has yet reached its ultimate truths, or can say to its swelling tide, 'Thus far shalt thou come and no farther.'"

And again:

"Never forget that you are not the master of Nature, but her humble attendant and assistant; that you are not the source of law to the vital economy, but merely the servant to aid the operation of its laws. The forces of the living organism are in a great measure beyond your control. Be cautious how you disturb them. Never look on a disease as some corporate entity which you can demolish at a blow. I would inculcate upon you no indolent Expectancy, no sluggish "meditation upon death," but I would advise you to be careful lest you tamper too freely with this complicated mechanism and its occult forces. I fear that the appeal of the quaint emblemist, Quarles, is addressed properly to many even in our day:

"Hold thy hand, health's dear maintainer;
Life perchance may burn the stronger;
Having substance to maintain her,
She untouched may last the longer.
When the artist goes about
To redress her flame, I doubt
Oftentimes he snuffs it out.

"But to the man of correct physiological views, who is acquainted with the laws of the organization upon which his medicinal agents operate, no such appeal need be made. He knows his position and his duty, and as he sits by to replenish the oil and tend the flame of the lamp of life, he can never imagine himself the source and fountain of its elemental heat and light."

This farewell address seems to have been delivered by Professor Patterson to his first class. We shall expect to hear of him again, as one who has won a name among the many renowned medical teachers of Philadelphia. Y.

WOUND OF THE INTESTINE, TREATED BY SUTURE—RECOVERY.

The following interesting case is contained in a letter from Dr. J. D. McBrayer, of Harrodsburg, Ky., to Prof. Gross.

On the 18th of March, 1843, a negro man (belonging to J. T. of Mercer county), 30 years of age, strong and athletic, received several stabs, one of which penetrated the cavity of the abdomen, midway between the umbilicus and the anterior superior spinous process of the ilium. The wound externally was about three inches in length, but not more than an inch where it penetrated the cavity of the abdomen. I saw him eight hours after the injury was inflicted, and found eighteen inches or two feet of the small bowel protruding. A moist cloth had been laid over the exposed bowel for protection; they had become partially dry and adherent. Warm fomentations were applied and the cloth removed; upon examination of the protruded bowel, a small puncture, about four lines in length, was discovered, penetrating it transversely, the mucous edges being completely inverted. Fortunately, remembering the strict injunctions given in your interesting lectures upon that subject, I adopted the course recommended by you, of closing the puncture by suture where there existed a liability to the discharge of fæcal matter through the wound. A single stitch with a common sewing needle armed with silk, sufficed to close the orifice so as to prevent the es-

cape of the contents of the bowel. With some little difficulty, the bowel was reduced without further dilating the wound. After ascertaining that there was but little if any hemorrhage into the abdomen, the edges of the wound were drawn together, and retained by three stitches, supported by adhesive strips, a compress and roller, &c. The other wounds were dressed by suture, adhesive strips and the bandage.

The patient being considerably exhausted by loss of blood from a wound on the hip involving the gluteal artery, stimulants were administered with freedom, during the dressing and for several hours after. About six hours after the dressing, when he had partially recovered from the immediate effects of loss of blood, the bowels were thoroughly evacuated by an enema of warm water.

March 19th. Circulation rather feeble with general languor and harassing cough, probably induced by remaining for some hours in his bloody clothing,—directed some mild expectorant remedy.

March 20th. Less languor; cough mitigated; pulse has more force and frequency; bowels sufficiently active.

21st. No improvement in the cough; reaction thoroughly established; slight soreness of the bowels; pulse small and tense; directed a saline draught.

22d. Cough continues; complains of pain in the bowels, increased by pressure; pulse hard and 120 to the minute; v. s. to ℥x. when the pulse became soft, full, and less frequent, and the pain in bowels greatly relieved. In the afternoon, the pain returned with the tension and force of the pulse; v. s. to ℥viii.; soon after which all symptoms of peritoneal inflammation subsided. His bowels were regulated by the use of oil and saline purgatives.

On the 25th the dressings were changed; the wounds looked healthy and were healing.

After this the dressings were regularly renewed every two or three days. The stitches closing the wound of the abdomen were not removed until the 15th day, in consequence of a remaining disposition to cough. In twenty days from the time the injury was received, the patient was enabled to walk out, and in six months he resumed his ordinary business. He still remains well.

LUNATIC ASYLUM IN INDIANA.

A correspondent informs us that the General Assembly of Indiana, at its last session, authorized a tax of 1 per cent., for the purpose of erecting an Asylum for the Insane. Ere long, therefore, we may hope to see an institution worthy of that young but noble commonwealth.

This action on the part of the Legislature is due mainly to the strenuous exertions of Dr. John Evans, of Fountain county. We have before us now a strong and eloquent address which he delivered by invitation before the Committee on Education of the House of Representatives, and the public, on the 25th of December last. Dr. E., at all sacrifice of time and labor, has not ceased, year after year, to press this matter upon the consideration of the Assembly, and we rejoice that his exertions have at length been crowned with success. We trust that when the proper time arrives, he will consent to take charge of the asylum; in his hands it could not fail to take rank immediately among the first institutions of the country.

C.

MEDICAL LECTURES.

Several gentlemen are engaged in the course of Lectures at the Medical Institute announced for the Summer. The session is divided into two terms—the first extending to the 1st of July, the second beginning the 1st of September and closing with October. Doctors Buck, Hagan, and Ferguson deliver their lectures in the Spring division; Drs. Cobb, Gross and Miller will lecture during the Fall term, and Drs. Caldwell, Yandell, Bayless, and Colescott are engaged in both terms. Clinical instruction is delivered at the Hospital.

Y.

LONDON LANCET.

The publication of this medical newspaper in this country was suspended for some time, but we are glad to have in our power to announce that it has been again resumed. Our readers will be pleased to hear it. The Lancet is one of the most spirited and racy publications of the day, and ought to have a wide circulation. Its present publisher is Thomas Walsh, 162, Nassau street, New York.

Y.

BOOKS AND COMMUNICATIONS RECEIVED.

We are indebted to the publishers for a copy of Stokes' valuable work on the Chest, which will receive our earliest notice. From the Medical Society of N. Y. we have received a copy of their Transactions containing several interesting papers, of which we shall have something to say hereafter. We are obliged to Dr. Bell for a copy of Nunnelly's elaborate monograph on Erysipelas, published in his Select Medical Library. Dr. Dowler, of New Orleans, has favored us with a learned communication on *Post-Mortem* Fever, which will appear in our June number.

New S. Vol. 1 No. 6.

THE

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OF

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June 1844

EDITORS.

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DANIEL DRAKE, M. D.,

PROFESSOR OF PATHOLOGY AND THE PRACTICE OF MEDICINE IN THE MEDICAL INSTITUTE OF LOUISVILLE:

LUNSFORD P. YANDELL, M. D.,

PROFESSOR OF CHEMISTRY AND PHARMACY IN THE SAME:

THOMAS W. COLESCOTT, M. D.

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